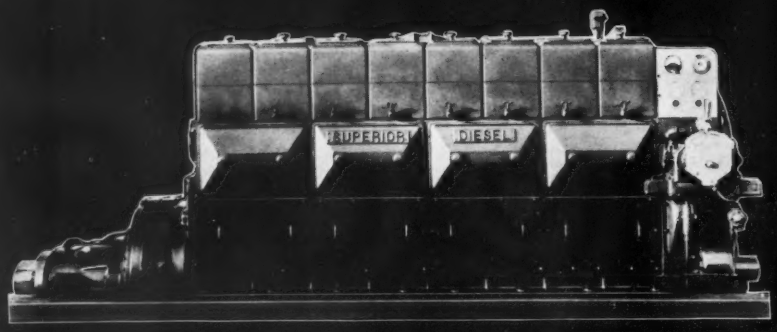
V

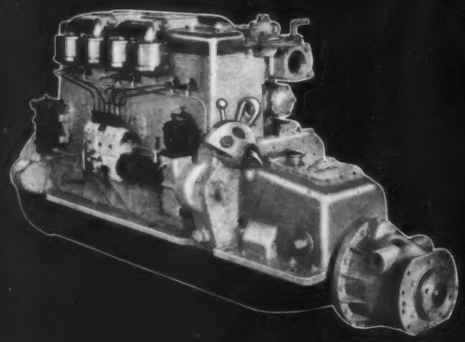
ATLANTIC FISHERMAN

Registered U. S. Patent Office

VOL. XXIII JULY, 1942 NO. 6

FROM NEW ENGLAND...





...TO NEW ORLEANS

NEW ORLEANS ★

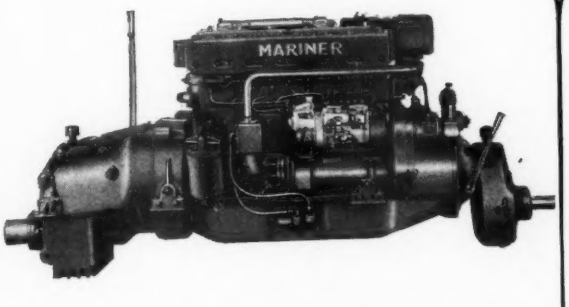
SUPERIOR DIESEL dependability and economy in fishing craft of every kind are matters of record for all to see.

The fisherman's share in the task of feeding both military forces and civilian population of an America at war is one of vital importance. Fortunate indeed is the skipper who has a Superior Diesel down below—a Superior whose steady, faithful performance is assurance that he will never be handicapped by expensive, inefficient power in doing his part toward winning the war.

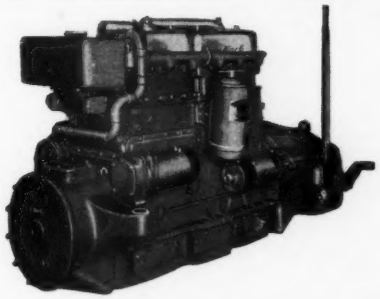
SUPERIOR ENGINE DIVISION...THE NATIONAL SUPPLY COMPANY

SALES OFFICES: Springfield, Ohio; Philadelphia, Penna.; New York, N. Y.; Los Angeles, Calif.; Jacksonville, Fla.; Houston, Texas; Chicago, Ill.; Fort Worth, Texas; Tulsa, Okla.; Boston, Mass. FACTORY: Springfield, Ohio

THE DIESEL THAT'S BUILT TO TAKE WHAT A WORK BOAT CAN GIVE IT!



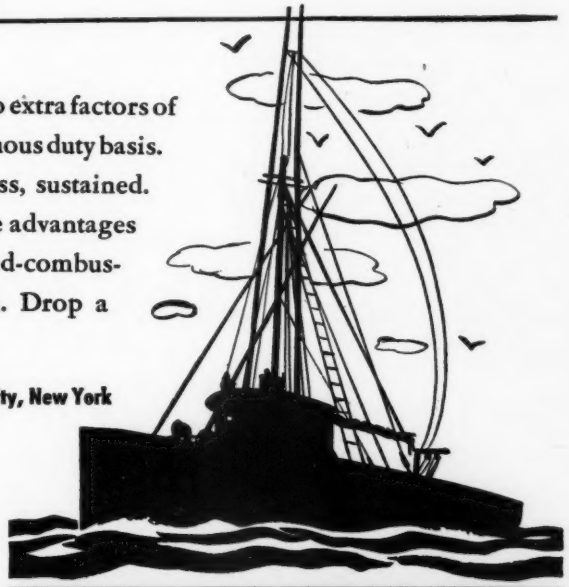
MACK MARINER 605 W FOR WORK BOATS, 100 sustained h.p., at 1500 R.P.M. Bore 4⅝". Stroke 6"—6 cylinders, Lanova combustion.



MACK MARINER 457 W FOR WORK BOATS, 70 sustained h.p., at 1500 R.P.M. Bore 4¼". Stroke 5⅜"—6 cylinders, Lanova combustion.

● Tough, rugged Mack Mariners are built to extra factors of safety—are conservatively rated on a continuous duty basis. Power is quick-starting, smooth, shockless, sustained. When you buy a Mack Mariner you get the advantages of 4-cycle efficiency and Lanova controlled-combustion. Operating costs are at a minimum. Drop a postcard for complete information today.

Mack Manufacturing Corp., Marine Engine Division, L. I. City, New York



GOING DIESEL? BETTER GO MACK!

MACK MARINE ENGINES ARE A PRODUCT OF THE BUILDERS OF WORLD-FAMED GASOLINE AND DIESEL-POWERED TRUCKS, BUSES AND FIRE APPARATUS

Mack

DIESEL MARINE POWER

"Since Using an ATLAS We have Lost NO Time,"

Says Capt. John Piscatello.

● **TIME** is the all-important element in the fishing industry. If employed to good advantage the operation proves profitable. If time is wasted, it can never be recovered. It is forever lost.

A boat that is tied up to the dock when it should be out fishing is a dead loss. That is why there is special significance to the statement made by Captain John Piscatello, skipper of the *Angie & Florence.*

Besides being economical on fuel and lubricating oil, the continuity of operation of a slow speed, heavy duty Atlas Diesel is a mighty important factor in profitable fishing.

Power your boat with an Atlas Imperial Diesel and over a period of years you will spend more time at the banks, and less time tied up at the dock.

ATLAS Imperial DIESEL ENGINES

ATLAS IMPERIAL DIESEL ENGINE CO.

OAKLAND, CALIFORNIA

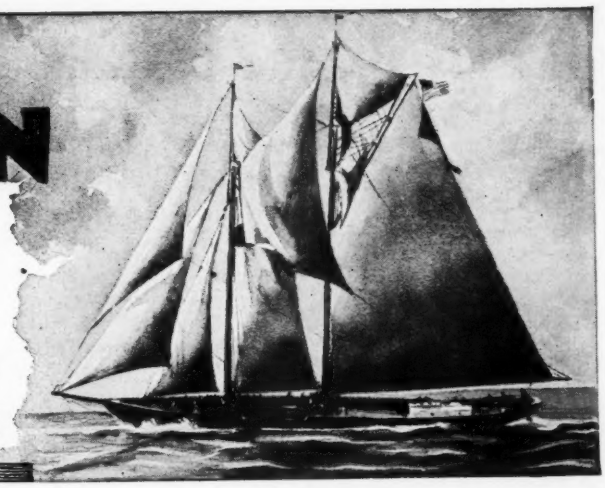
NORTHWESTERN DIVISION . . . . 69 COLUMBIA STREET, SEATTLE, WASH.
EASTERN DIVISION . . . . . 115 BROAD STREET, NEW YORK, N. Y.
CENTRAL DIVISION . . . . 228 NORTH LA SALLE STREET, CHICAGO, ILL.
SOUTHWESTERN DIVISION . . 5726 NAVIGATION BOULEVARD, HOUSTON, TEX.

ATLANTIC FISHERMAN

REGISTERED U. S. PATENT OFFICE
Published Monthly at 92 West Central St., Manchester, N. H.
ATLANTIC FISHERMAN, INC., Goffstown, N. H.
P. G. LAMSON, *Publisher*
GARDNER LAMSON, *Editor*
10 cents a copy $1.00 a year

Entered as Second Class Matter February, 1925, at the Post Office at Manchester, N. H., under the act of March 3, 1879. Entered as Second Class Matter at the Post Office Department, Ottawa, Can.

Covering the Production and Processing of Fish and Shellfish on the Atlantic Coast, Gulf of Mexico and Great Lakes.



VOL. XXIII JULY 1942 NO. 6

Importance of Fisheries Deserves More Recognition

LAST month we analyzed the size of the New England fishing fleet as affected by Government acquisitions and replacements during the past two and one-half years. At that time, the fleet showed a net loss of only nine vessels of all sizes, taking into consideration those under construction. However, there was a noticeable deficiency in vessels over 100 feet in length, to the extent of twenty-five. As a result, there has been a pronounced reduction in productive capacity in Massachusetts, from which most large vessels operate.

During the past month, the Government has taken still more fishing vessels, including this time twenty-five draggers and one trawler, from Boston, Gloucester and New Bedford. The withdrawal of these vessels means a further loss in production, for which no replacements are available.

While many divisions of the fisheries have not as yet been affected seriously by the Government commandeering of boats, the groundfish industry of Massachusetts has suffered a sizable decrease in production.

Because of increased prices, the amount of fish being frozen is expected to show a decided drop, since ceiling prices on frozen products prevent higher cost for raw materials. With this situation, the reduction in groundfish supply will be felt mostly in the central and western sections of the country where the bulk of frozen merchandise has been marketed. The fresh fish market, while paying a higher price, will probably continue to receive most of its requirements.

Since the majority of vessels taken by the Government were engaged in groundfishing, the prices on such varieties as cod and haddock have increased greatly. This may have the effect of limiting production of some seasonal species such as mackerel and swordfish, since groundfish operators, because of high prices, will be reluctant to change over their boats for other fishing.

Today the industry is attempting desperately to solve the problem of regaining its lost productive capacity. There seems to be but little opportunity for increasing the catch per boat, although the elimination of the three and four day lay-overs between redfish trips should alleviate the shortage of that species to some extent. Even though vessels do not always return to port fully loaded, such a desirable situation is impossible because of the elements of chance, weather and time.

The only real solution lies in building more boats. It has been found that there are numerous shipyards all along the coast that have ample unused facilities for building fishing boats. There are many individuals in the industry that have the initiative and capital with which to build. But there is one obstacle, and that is the inability to buy equipment within a reasonable period. Some items of equipment are still obtainable with the priorities which the industry can get, but other equipment is becoming increasingly difficult to procure with even the best priority. This, no doubt, is the result of a growing demand by the Government for its shipbuilding program.

We all realize that our fighting forces must be supplied with the maximum amount of equipment and supplies. We also know that both the fighting forces and civilian workers must be properly nourished.

Fishery products, while not ranking in quantity with some other foods, nevertheless do furnish a substantial part of the nation's diet. They are regarded particularly valuable from a nutritional standpoint.

Fish for food cannot be dispensed with unless its place can be taken by some other food. Fish is the only food that grows by itself and is nourished by natural elements. All other foods must be raised on or from the land, which must be fertilized and maintained by manual labor and machinery.

Further taxing of land grown products, to offset a loss in fish supply, would burden still more the already short-handed farming industry. It would also require increased processing facilities, while the fine shore plants of the fishing industry remained partly idle.

In view of the heavy demands upon the food supply from our armed forces and allies, it might be feasible to even enlarge the catching facilities of the fishing fleet, because fish does represent such an easily procured food. It has already been demonstrated that the output of the existing fish processing and packing equipment can easily be considerably increased without additional outlay.

Therefore, it would seem advisable for the Government to make every effort to allow the fishing industry to function at normal capacity at least, pursuant, of course, with absolute war needs.

In order to do this, all possible aid should be given in allocating sufficient materials for building new vessels to replace acquisitioned tonnage. This would assure the industry of continued productive capacity, it would place in operation many smaller shipyards, and it would assure the Government of having an undiminishing reservoir of convertible sea-going equipment, which could be utilized readily in an extreme emergency.

The Cover

THROUGH the kind cooperation of the Columbian Rope Company, whose advertising contracts have reserved the front cover of *Atlantic Fisherman* ever since the magazine was founded 23 years ago, we are able to display the American Flag and the motto "United We Stand". For this July issue, the Columbian Rope Company have donated their space to the patriotic purpose of displaying the American Flag, and have contributed the four-color process plates of their original design.

Methods for Cultivation of the Edible Mussel

By Dr. V. L. Loosanoff, Milford Fishery Laboratory

OF all the edible shellfish of our waters the mussel appears to be the most prolific. It is found throughout the entire inshore area of the North Atlantic. However, regardless of the common occurrence of this animal, the mussel fishery in many sections is at present virtually non-existent.

It seems that the lack of interest in mussel fishery is due chiefly to the fact that, because of the irregular appearance and disappearance of mussel beds, it is difficult to depend upon a steady and timely supply of these animals. Obviously, if a mussel industry is to be created, this difficulty must be overcome. The second, and probably equally important reason responsible for the lack of interest in the cultivation of mussels, is that in the past the American public has not been very desirous of including mussel meats in its diet.

Good Market for Mussels

Recently, however, mostly because of the abnormal conditions created by the war, a demand for mussels has occurred. For example, the sale of sea mussels in Virginia during 1940 amounted to 309,000 bushels. Although these mussels were not used directly for food purposes, they were in demand because of their value as a source of vitamin D_3 in poultry food.

Also sometime ago attempts were made by fishery authorities of the State of New York to supply large quantities of mussels to the training camps of Long Island. Finally it should be borne in mind that European people are very fond of mussels and therefore this product can be exported.

The cultivation of mussels has been carried on in Europe since the beginning of the 13th century. However, not all of those methods used in Italy, France or England are suitable for our country. In the first place the amount of labor involved in the construction and attendance of European mussel collectors would render them too expensive for American use. Secondly, in most places where cultivation of mussels is carried on in Europe the winter is mild and the formation of ice is virtually unknown. In our case, however, a heavy layer of ice would destroy any of the devices that are extending above the low water mark.

Therefore, our problem consists chiefly in devising a type of collector which will be extremely cheap to install and maintain and which can be located and kept below mean low water.

Simple Collector Devised

The suggested method of collecting mussel set and growing it to a marketable size is extremely simple. It consists of suspending in a vertical position large lengths of regular poultry mesh wire. The wire is held in position by a series of poles driven into the bottom.

These poles, approximately 4 inches in diameter, can be made of the same material as that used in making buoys for the corner of oyster lots in Long Island Sound. Their lengths in most cases should not be more than 8 feet. The poles can be easily driven into the bottom to a depth of 2 or 3 feet. The distance between the poles will depend upon the local conditions, such as firmness of the bottom, and direction and velocity of tidal currents.

The poles should be placed in several parallel rows. By attaching crosspieces across the rows numerous lengths of wire can be suspended from such a structure. In order to reduce the resistance of the wire to cross currents the length of each piece of wire should not exceed 20 or 25 feet.

The structure may be constructed to permit it to hold the wire in a so called "summer position" or "winter position". As a rule, such an arrangement will not be necessary. It will be needed in such cases when, because of the local ecological conditions, the setting of mussels will occur only above the mean low water mark. Under these conditions the wire should be lowered to the lower section of the structure as soon as a sufficiently heavy set of mussels is secured. The upper section should then be dismantled.

Our observations in Long Island Sound indicate that in most inshore areas good, or even extremely heavy setting of mussels occurs below low water mark. These observations indicate, therefore, that in all such areas the entire structure of the collecting device will be located under the mean low water mark. It is recommended that the tops of the poles of the collectors be at least 18 inches below that mark.

Such an arrangement should eliminate the danger of destruction or damage to the collectors by the ice formed in the winter. Further advantage of such under low water collectors is that once set in position they may remain there without requiring any labor or much attention until the mussels are ready to be marketed. This, of course, renders our new method of mussel culture extremely cheap.

Floating Type Equipment

For certain areas where it may be found that mussel larvae attach themselves only in the upper stratum of the water, a floating type of collector is suggested. Such a collector should consist of the float, built of logs or empty drums, to which numerous pieces of poultry wire are attached. In the autumn, before the onset of freezing weather, the wires should be transferred to the winter position, where the mussels can be kept until large enough to be utilized.

In some perhaps rather unusual cases a certain area may be found extremely productive but rather limited in size. To obtain the utilization of such waters to their maximum another variation of a chicken wire collector is suggested. Such a collector should consist of a regular roll of poultry wire suspended from the float or some stationary structure. Before being suspended, the rolls of wire should be loosened so as to give more space between the layers.

This type of collector should not remain in its original position after the mussel set is obtained. If it is left undisturbed the young mussels will attach their byssus threads between layers of the wire thus creating one compact mass. If, however, such collectors are attended soon after the setting occurs they may be unrolled and suspended in the usual way, or, if the creation of bottom beds is desired, they can be spread on the bottom. Hard, stony bottom below low water mark should be selected. New mussel beds could be easily established in such a manner.

Advantages of Using Wire

The advantage of using chicken wire for the collection and growth of mussels are numerous and I shall mention the most important ones.

1. The utilization of chicken wire should give a reliable and probably the cheapest method that can be employed on a commercial scale. It is estimated that a length of wire 4′ wide will at the end of two years yield about 1½ bushels of mussels per linear foot. The cost of 4 sq. ft. of wire is, at the present prices, only 2 or 3 cents. Labor and other material should not exceed 7 cents per linear foot. Therefore, the total cost of production will be approximately 8 cents a bushel. If a man can sell a bushel of mussels for 50 cents or even 25 cents he will be making money.

2. By using the wire all three dimensions are utilized, therefore, a small body of water would produce much greater quantities of mussels than if the bottom alone were utilized.

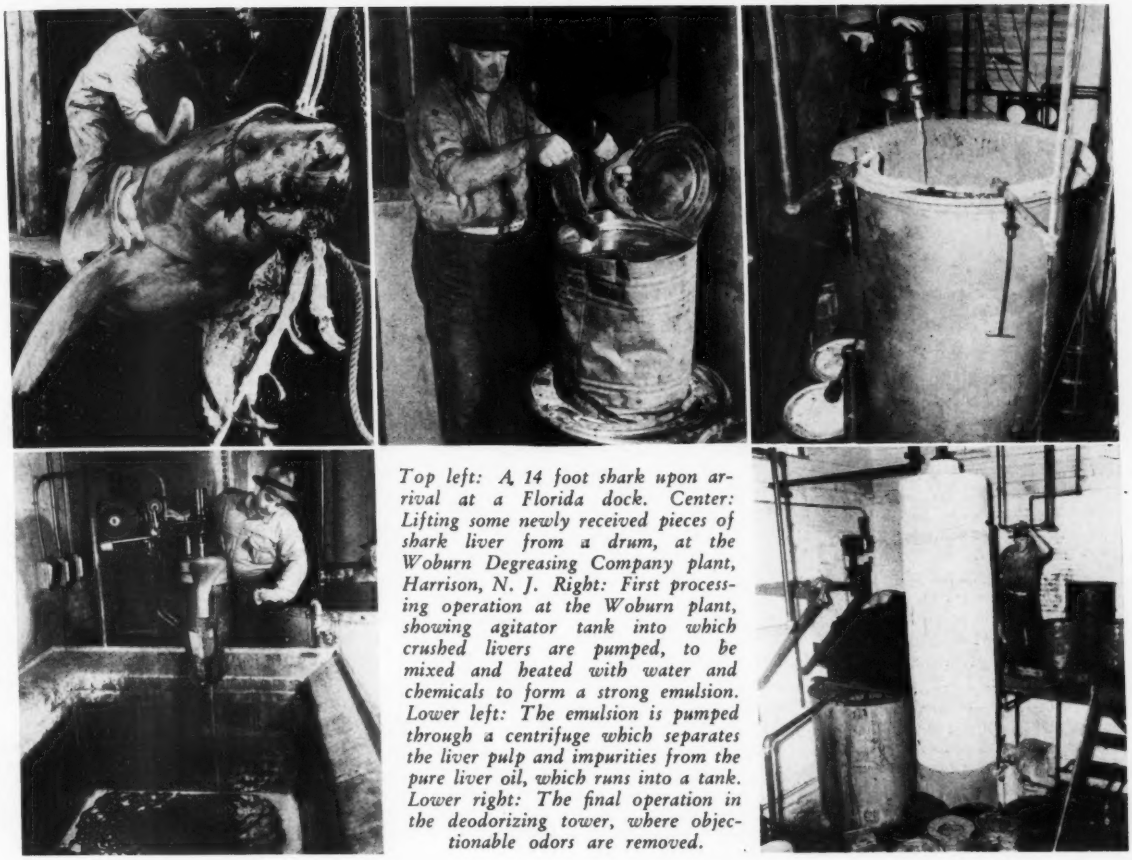
3. It is easy to remove and replace large sections of chicken wire from one position to another.

4. Because the wire will be suspended off the bottom young mussels will be protected from their enemies, such as starfish and drills.

5. Because of the same reason there should be no accumulation of waste material covering the mussels. Therefore, it can be expected and is already somewhat supported by our observations on the growth of these animals that suspended mussels will grow more rapidly than when left to grow on the bottom.

6. The wire with mussel set on it may be rolled or cut in sections and then can be conveniently shipped to shucking houses or any other destination.

(Continued on page 20)



Top left: A 14 foot shark upon arrival at a Florida dock. Center: Lifting some newly received pieces of shark liver from a drum, at the Woburn Degreasing Company plant, Harrison, N. J. Right: First processing operation at the Woburn plant, showing agitator tank into which crushed livers are pumped, to be mixed and heated with water and chemicals to form a strong emulsion. Lower left: The emulsion is pumped through a centrifuge which separates the liver pulp and impurities from the pure liver oil, which runs into a tank. Lower right: The final operation in the deodorizing tower, where objectionable odors are removed.

Testing and Processing Shark Livers for Oil

WITH the entire country vitamin-conscious, and the government using huge quantities of vitamins to protect the health of men in various branches of the service, its defense workers, as well as supplying England through the lend-lease plan, laboratories are working overtime to find new sources of these health aids.

Of paramount importance to the fighting forces is vitamin A—which fortifies against infection, prevents the common cold, conditions the skin and prevents disorders in the eyes. Airplane pilots on night flights find that consumption of vitamin A may increase as much as 100 times their ability to see in the dark.

The biggest non-military and non-medical use of vitamin A at the present time is by chicken-feed manufacturers and milk companies.

Before the war much of our vitamin A was imported. We purchased 72,000,000 pounds of fish livers (source of vitamin A) annually from Norway, some from Japan, some from other countries. With the invasion of Norway we were threatened with a definite shortage of the precious vitamin A.

However, providence, in the form of the halibut and the soupfin shark, intervened to care for the nation's needs.

And with the discovery of the soupfin shark, the halibut, the dogfish and the tuna as superior sources of vitamin A, a new field opened up for laboratories up and down the West coast—testing shark and other livers to determine the vitamin content. All buyers test livers before they are sold, to guard against the extreme variance in vitamin content. In Seattle, where great numbers of shark livers are marketed, Laucks Laboratories, Inc., is kept quite busy sampling and testing the livers and liver oils. Livers are tested every day, and sometimes, if the catch is a large one, men in the laboratory may work day and night to take care of the demand for laboratory service.

Sharks Give Impetus to Industry

Laucks Laboratories have been testing shark livers since the first days of the halibut liver oil production. However, the entire fish liver industry received a tremendous impetus when a San Francisco fish broker, by the name of Guaragnella, on a wild hunch, had the huge liver of a soupfin shark tested for its vitamin content. This species of shark has a liver weighing one-tenth of its total weight. The average liver weighs about six pounds, a few as much as twenty pounds. And what is more, approximately sixty-five per cent of the liver of the shark is oil.

Guaragnella received a laboratory report that the vitamin content of this liver was thirty times as rich in vitamin A as cod liver oil, one of the previous high sources of this product. Whereas a first-class cod will give about 4000 units per gram of vitamin A, a first-class West coast shark liver will give about 150,000.

Up to that time shark carcasses had sold at about $10 a ton and were used for fertilizer. The Chinese bought the fins for soup. No one suspected that these gray monsters which had been tearing fish nets and causing such trouble to fishermen would ever have other than nuisance value.

Then Guaragnella started buying soupfin shark for $40 a ton and the secret was out. Prices for sharks zoomed—$400 a ton....$500....and last fall, $1500. All fishermen who had equipment—and many who didn't—started on the chase of the soupfin shark.

As was mentioned above, soupfin shark livers are a boon to the testing laboratories—as the vitamin content of the liver

cannot be determined by size or appearance—although the darker, more mottled livers usually have a higher vitamin content.

Testing Vitamin Potency

Several factors determine the vitamin potency of the liver—the locality where the shark is caught—the grounds where it has been feeding—the season when the shark is caught. Also, males have much higher vitamin A potency than female sharks. All of these factors make continual and accurate analysis for vitamin content an absolute necessity.

At Laucks Laboratories, two methods of testing are used—one for testing the livers themselves and the other of testing the extracted oil. Because the vitamin potency of livers and liver oil is easily destroyed by the first traces of rancidity or putrefaction, fishermen freeze the livers immediately after catching the fish. These iced or frozen livers are then sold through fairly well-organized local auction-type markets where the liver processing plant operators, the brokers and speculators bid one against the other. It is these buyers that are in urgent need of information about the vitamin potency of the livers, since they sell for as high as $6.00 per pound, and the entire value is in their vitamin content.

This is what happens when liver oil from a soupfin shark is brought to Laucks Laboratories for testing. Laucks technicians use an intricate spectrograph, and tests take approximately two hours.

A few milligrams of the oil are diluted with grain alcohol which contains no water. A carbon arc light of the instrument passes through the solution before it is reflected from a finely-ruled grating. The rulings on this grating are so fine that there are 24,000 lines per inch, and each line is exactly parallel to every other line.

The result is the creation of a beautiful rainbow which, when recorded on a photographic film, gives a means whereby the vitamin A content of the oil can be estimated by the spectrographer on examining the developed film with the aid of an electric eye.

Processing Atlantic Shark Livers

East Coast and Carribean fishermen are likewise busy hunting the prized shark. In order to give them an outlet to which they can sell shark livers for processing, conversion plants have been built on the East Coast.

The Woburn Degreasing Company of Harrison, New Jersey, has constructed a unit for the prime purpose of processing shark livers into high-content vitamin oil.

The Woburn Company maintains a staff of men whose sole job is to buy shark livers, which are cut up on the spot and shipped in drums to their plant.

Because shark livers are often enormous in size, they must be sliced into sections before they can be shipped. The liver of the Atlantic Ocean shark is usually 25% of its weight.

After the shark livers have been taken from the shipping drums at the Woburn plant, they are crushed and pumped into a large agitator tank where water and chemicals are added. This mixture is then heated and agitated to form a strong emulsion.

From the emulsion tank Woburn chemists pump the oil through a high speed centrifuge where the oil is separated from the shark liver pulp and certain other impurities, and runs into the tank as pure shark liver oil.

Special care is taken to utilize every possible drop of material which can be recovered. Even the pulp from the centrifuges is reworked once again to extract every last drop of the precious high-vitamin oil.

The final step in the treatment of shark liver oil at the Woburn plant takes place in a deodorizing tower where the objectionable odors are removed. This leaves a product immediately ready for sale to pharmaceutical houses which bottle it for shipment.

Today, shark liver oil is the richest available source of concentrated vitamin A, which is one vitamin that has not yet been produced artificially.

As it is nutritionally as important to military and civilian population as aluminum and steel, many invaded countries, with rationed food materials, are urgently asking for vitamins for nutritional and therapeutic purposes.

Thus, the under sea marauders of the deep have given up their golden hoard and surrendered it for the use of mankind.

How the Oyster Drill Works

By M. R. Carriker

ONE of the worst enemies of the oyster industry is the inconspicuous oyster drill, *Urosalpinx cinerea* Say. Its destructiveness is known even on English beds, where it was carried on American oysters some years ago. With a view to a more fundamental approach in ultimate control, the boring mechanism of the pest has been investigated in our New Jersey Oyster Research Laboratories.

The mouth parts of the drill are contained in the terminal end of a very pliant, flexible fleshy tube, which when extended, reaches a length greater than the length of the drill itself. The fleshy tube arises from the false mouth, or the site which in unspecialized animals is the mouth. In the inactive drill the fleshy tube is concealed in the body cavity. By means of blood pressure and strong muscles the tube may be everted at will through the false mouth. So manageable is the tube that it may be moved in any plane. I have even observed drills forcing this organ between two microscopic slides so close together that the fleshy tube became flattened to twice its normal width.

The true mouth of the drill is located on the front tip of the fleshy tube. It opens into a mouth cavity. The oesophagus opens from the dorsal wall of this cavity and conveys food to the stomach. A tongue-like structure, bearing a long slender belt covered with extremely hard, razor-sharp, glass-like teeth on its surface, lies on the ventral wall of the mouth cavity.

When a drill has selected a boring spot on an oyster shell, it forces the fleshy tube out through the false mouth and down over the front part of its foot to the oyster shell. The sides of the foot curl upwards and inwards around the fleshy tube. A completely closed tube is thus formed, down which the fleshy tube is extended to the surface of the oyster shell. This foot tube serves not only to protect the delicate fleshy tube from enemies, but also supports the complex muscular system of the fleshy tube. It also explains why the tube is rarely seen when the drill is boring.

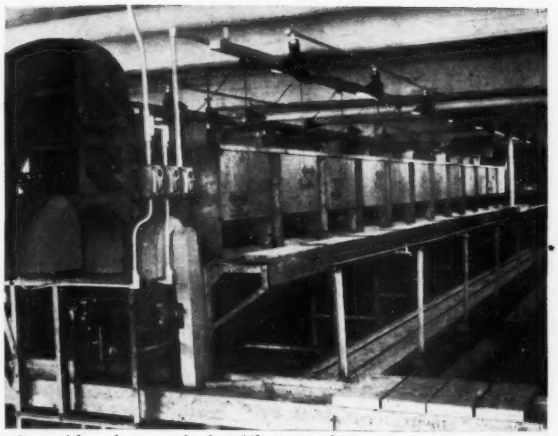
As the tip of the fleshy tube reaches the surface of the oyster shell the tongue is directed externally through the mouth in a licking motion. Thus the toothed ribbon, bearing teeth which point backward as do the hairs on a cat's tongue, scrapes against the oyster shell as the tongue is drawn across the shell surface and back into the mouth cavity. The tongue turns on its long axis during the boring, so that a smooth, symmetrical hole is bored. The toothed ribbon, simultaneously with the licking motion of the tongue, is pulled back further over the tongue by special muscle fibers. In this manner the efficiency of the boring apparatus is increased: during the scraping stroke the toothed ribbon is pulled back over the tongue thus pressing more teeth against the shell surface. The boring process is relatively slow: about 60 tongue strokes per minute have been observed in a few drills.

The oyster drill has achieved such immense success on the oyster beds, firstly, among other reasons, because of the extreme evolution of its feeding mechanism to predation of shell fish; and secondly, because man, also desiring the palatable oyster, continues to provide the drill with its specialized food.

The following main specializations are involved in the efficient functioning of the boring mechanism: an exceedingly intricate and extremely specialized system of muscles which manipulate the mouth parts and a numerously branching artery which provides blood to all of these muscles. The musculature during boring requires an extra supply of oxygen and food. Particularly is this demand great when the drill, as frequently happens, bores continuously for many days. Multi-branching patterns of nerves direct the movements of the muscles. And glands present at the base of the fleshy tube provide generous quantities of muscus for the lubrication of the mouth parts.

However, as efficient as is the boring apparatus of the drill, it alone cannot penetrate the hard shell of shellfish. In its specialization, the oyster drill has developed a foot gland which by a special secretion appears to soften shell so that the toothed ribbon may scrape it away! This gland is located on the ventral side of the front third of the foot.

When the teeth on the tongue make no further headway in boring, the drill retracts the fleshy tube into its body. It then



One side of one of the filleting tables at the new General Seafoods Gloucester plant.

The wrapping and weighing unit where the fillets are prepared before being quick-frozen.

Straight-Line Production at New Gloucester Plant

General Seafoods Corp. Branch is Designed for Ideal Working Conditions and Quality Control

ONE of the largest and finest fish packing and freezing plants in the industry was placed in operation last month, when General Seafoods Corp. of Boston, reopened its Gloucester, Mass. property, under the management of Robert Merchant.

Located where the Company originally started operations, the two-story fireproof building has been transformed into an ultra-modern establishment.

The exterior has been resurfaced and reroofed, while the inside has been renovated completely and supplied with new wiring and plumbing installations.

The Company's wharf, directly across Commercial Street, has been rebuilt. Wired for light and power, and equipped with a high-pressure sea water pumping system for cleaning purposes, the wharf provides simultaneous docking space for three large trawlers or six small draggers. At the shore end of the wharf, a large concrete-based platform scale has been erected, equipped with the automatic "print-weight" device. Weighing of loads is speeded up, as the scale is large enough for loaded trucks to drive onto.

In the yard, near the building, are the company garage and repair shop. In the rear of the plant, and about 500 feet from the sandy beach, is the pump house, which contains a large sea water pump assuring an adequate supply of water to the plant for various operations. As part of the pump house equipment, there is an automatic chlorinating unit for the sterilization of all sea water supplied to the plant.

The entire plant has been remodeled and laid out with two goals in mind that apply to all General Seafoods plants: first, an effort to provide ideal working conditions for employes; and second, to control quality of the product through every operation.

A fleet of tractor-trailers carries the fish from the boats into the receiving room on the first floor of the plant. Here they are unloaded into a wash hopper and given a spray bath of clean sterilized water.

After the spray bath the fish go into a rotary scaler—which can scale thousands of pounds of fish hourly—and come out the other end clear of scales and freshly washed to be taken by mono-rail hoist to the light and airy cutting room.

Here the cutting tables, with their straight-line production set-up, are reminiscent of an automobile assembly plant, but in reverse. For here, instead of things being put together, at one station after another, they are separated. White coated men with knives cut into fillets the fish, which are brought to them on an endless conveying belt system running down the middle of the cutting tables.

Another belt line takes the fillets to the next operation, while a third conveying belt carries away the parts of the fish left from the filleting.

These cutting tables were designed by General Seafoods staff men, after extensive time and motion studies, to promote speed and safety, and to eliminate fatigue.

At these tables, each man has his own station. He has a separate hot water supply for sterilizing his knives and steels. Scientifically correct illumination is provided for each worker.

At the end of each cutting table is the inspection table. Here, redfish fillets, passing over sheets of Lucite, under which are powerful waterproof light units, are given the most minute inspection.

After the fillets leave the inspection tables they are immersed in a controlled brine bath to bring out the flavor of the fish.

Next the fillets are taken to the weighing and wrapping unit. Here they are quickly and carefully weighed in 1, 5, and 10 pound lots and wrapped in cellophane or parchment paper, under the 40-Fathom trademark. Then they are packed in wax-coated cartons, which are racked and sped to the quick-freezing room.

Quick-freezing is handled by a battery of multiple plate frosters. When the boxed and wrapped fillets are placed in

---

moves forward slowly over the shell, with the foot closely appressed to the oyster shell until the opening of the foot gland lies directly over the bored spot in the oyster shell. At this point the foot gland billows out and fills the partly bored hole. The drill remains in this position approximately five to thirty minutes, then slowly withdraws the foot gland. It backs away from the hole, everts the fleshy tube, and continues boring for two to fifteen minutes. This process of softening and boring proceeds until the oyster shell has been perforated.

The drill then passes the fleshy tube through the perforation. The tongue and toothed ribbon, which previously were used in scraping away shell particles, are now utilized in tearing off oyster flesh. Drills have been observed to feed continuously for as long as twenty hours. Only the softer parts of the oyster flesh yield to the insistent tugging of the tiny drill teeth. Thus the adductor muscle and other stronger muscles of the oyster remain intact. This explains why an oyster remains closed long after being bored by a drill. It is only after the adductor muscle has relaxed and started to decompose that the shells gape open.

Such facts on boring methods, combined with considerable further investigations of the same nature, may yet supply information which will provide methods of more adequate drill control.

The sardine cannery of Addison Packing Co., Southwest Harbor, Maine.

the huge chest-like frosters the plates are brought together and absorb the heat so quickly that the fillets are soon solidly frozen.

As soon as the boxes of fillets leave the frosters they are cased in strong, double-duty protective shipping cartons and rushed to the huge holding room. From here on "time stands still" for the fish. Kept at an automatically controlled low temperature, they retain their freshness and flavor almost indefinitely.

On the second floor of the plant are located the offices, the clinic, men's and women's locker rooms, laboratory, and general storage rooms.

To the laboratory, fully equipped with the latest apparatus, goes a sample of each lot of fish brought into the plant. These samples are "put on the mat" by a trained and highly skilled staff chemist. Again, after packaging and quick-freezing, another sample batch is subjected to the same critical and rigid examination. These laboratory tests are only one phase in the organized system of quality control General Seafoods maintains to keep its products up to the high standard which they have set.

The clinic, with its sun-lamp rooms, hospital beds, and modern equipment, would delight any doctor. It is in charge of a licensed physician. A registered nurse is on duty during all plant working hours. Clean, healthful and pleasant working conditions are insisted on at the plant, and every employe is given a periodical physical examination.

The men's and women's locker rooms are the last word in spacious and sanitary convenience and comfort. There are showers, foot-operated circular wash stands, and individual lockers.

Actually the plant has been made an ideal place to work in. It has wide, high windows which give practically daylight conditions. Scientifically planned heating and lighting arrangements have been installed. Even the floors are treated with water-proof, non-slip aggregate topping. A specially built drainage system, drawing from all the working rooms, is connected to a sewerage of a type which will eliminate waterfront pollution.

Commission To Appoint Advisory Group

THE Atlantic States Marine Fisheries Commission, organized recently to conserve and increase commercial and sports fisheries from Maine to Virginia, announced on July 9 it will establish an advisory committee to provide equal representation for sport fishermen and commercial interests, including lobstermen and shell fishermen.

The Commission hopes that sportsmen and commercial fishermen alike will realize that their common interest lies in eliminating such past conflicts and antagonisms and joining wholeheartedly in a genuine common effort to use wisely present resources and to build up fishery stocks so both sportsmen and fishermen will benefit by the increased abundance of all the fisheries.

Maine Crabmeat May be Excepted From Price Ceiling

MAINE crabmeat packers received encouragement the week of June 22 that they might be relieved from the price ceilings which would make their operation impossible. The crabmeat industry has had a remarkable development in Maine as a result of the enterprise of certain concerns along the coast, and the authorities in Washington indicated considerable sympathy for the suggestion that the industry should be permitted to operate since it taps an otherwise untouched source of food supply and continues to serve American dietary tastes which were formerly dependent upon supplies from Japan.

Prospect of Increasing Sea Salmon

Former United States Senator E. C. Walcott, affiliated with the American Wildlife Institute, told State Fish and Game Commissioner George J. Stobie that his study so far had convinced him that the prospects of increasing the supply of sea salmon in certain Maine rivers was good.

"Walcott," said Stobie, "is in Maine on a return visit to co-operate with us in our efforts to develop our salmon rivers, and because of his efforts, we feel that great progress is being made. He is carrying on a complete investigation of river conditions and various phases of the sea salmon situation."

"Falcon" Repowered

The *Falcon*, owned by Capt. Edward Brackett of New Harbor, has been reconditioned and powered with a new MRD 4-cylinder, 90 hp. Superior Diesel, sold by Harbor Supply Oil Co., of Portland. The engine gives the boat a speed of 12 knots through a Hyde propeller at 475 rpm., and is equipped with Twin Disc 3:1 reverse gear and 1:1 hauling gear. The boat is engaged in seining pollock, mackerel and herring. Russell Brackett is the engineer.

New Mack for "Annie Louise"

The dragger *Annie Louise*, operated by The Harris Co., Portland, was recently equipped with a new model 605W, 100 hp. Mack Mariner Diesel by Rapp-Huckins Co. of Boston.

Capt. Edward Brackett, New Harbor, Me., left, and Harvey Simmons, Superior engine serviceman, with Capt. Brackett's "Falcon".

Fishing Vessel Replacements Discussed at Hearing

ON July 9 at Washington, a hearing on the Oliver Bill, HR 1616, pertaining to Ship Subsidy, was held before the Merchant Marine and Fisheries Committee of the House.

It was suggested that the Maritime Commission be ordered by Congress to embark on a wooden ship construction program to replace fishing vessels requisitioned by the Army and Navy.

Legislation to accomplish such a purpose could carry a provision insuring the granting of necessary priorities to make the vessels available as soon as possible, its proponents explained.

Representative Oliver offered the suggestion as an alternative to his own bill, which would authorize the commission to extend financial assistance to private interests in providing replacement construction. Under the provisions of his bill such construction would be possible upon a down payment by the owner of 12½% of the cost, the balance to be paid off in not more than 20 annual installments.

It is reported that worth while progress was made as a result of the hearing, and that a hopeful outlook was seen for increased consideration for the fishing industry from Government quarters.

E. H. Cooley, Manager, Massachusetts Fisheries Association, suggested the following amendments to the bill in order to make it of maximum value to the Fisheries:

1. That future building of fishing boats should be conducted in accordance with the law of supply and demand and past earnings, such building to replace losses in tonnage only, unless otherwise justified. Furthermore, that the suggested 12½% of the cost necessary for the owner to pay down should be increased to 25% to insure sound and legitimate investments in the industry.

2. That a standardized model of boat be built which would incorporate the most desirable features for fishing, at the same time being arranged for easy conversion to war purposes; the design to be worked out jointly by representatives of the industry and Navy.

3. That provision be made for amortization and depreciation privileges up to 100% per year.

4. That the proceeds of any forced sale of a fishing vessel to the Government should be tax free, and that the opportunity be given for impounding the money from a sale at regular interest rates for a period of six months beyond the duration of the war.

5. That at the option of the owner, vessels taken by the Government could be either chartered or purchased.

Cold Storage Holdings Increase

A TOTAL of 63,337,000 pounds of fishery products were held in cold-storage plants in the United States as of June 15, 1942, according to the Fish and Wildlife Service. This was an increase of 15 percent as compared with holdings on the same date the previous month (55,036,000 pounds), and an increase of 15 percent over the holdings on June 15, 1941 (55,117,000 pounds).

Items showing marked increases in holdings on June 15, 1942, as compared with the same date a year ago, were cod, haddock, hake, and pollock; cod, "lingcod", and haddock fillets; shrimp; flounders; croakers; whiting; suckers; mullet, sablefish (black cod); silver, or coho, salmon; scup (porgies); blue pike and sauger.

During the month ended June 15, 1942, a total of 25,192,000 pounds of fishery products were frozen in the United States and Alaska. This represents a decrease of 2 percent as compared with the same period last year, but an increase of 11 percent over the 5-year average. The principal items frozen during the month were halibut, 5,014,000 pounds, and whiting, 3,769,000 pounds.

Freezings of all items showed a definite increase of 11 percent over the operations during the previous month.

The "Frances C. Denehy" at Boston Fish Pier. Owned by Fauci Oil Co. and commanded by Capt. Michael Hayes. Equipped with 330 hp. Fairbanks-Morse Diesel, Willard batteries, Submarine Signal Co. Fathometer, and Western Electric telephone and radio compass.

North Carolina State Board Visits Oyster Farm

DIRECTOR R. Bruce Etheridge of the State Board of Conservation and Development, after a visit to the State's experimental oyster farm near Morehead City, said that within two years the unit would show oystermen how to increase production three-fold.

The Board, holding an annual meeting here, with Governor J. M. Broughton in attendance, visited the farm on July 7.

Etheridge reported that the farm has a total of 80 acres and 250 bushels of oysters were planted to the acre. Within two years it is expected that each acre will produce three times as much oysters as were planted.

The Board made plans to restudy the entire State fishing situation after receiving reports that war restrictions were seriously interfering with normal fishing off the Carolina coast.

Would Use Menhaden Boats for Mullet

Representing menhaden interests, W. H. Potter of Beaufort asked that menhaden boats be permitted to catch mullet in purse seines. He explained that menhaden fishing had been hard hit by Government restrictions against fishing in certain waters and fishing at night. Opposition to his petition was registered by small fishermen, who feared it might cause unfair competition and lower mullet prices.

The question was referred to the Commercial Fisheries Committee, and a public hearing will be called here later.

Ask Earlier Rock Fishing

Opening of the season for rock fishing in Albemarle Sound and Chowan River August 1 instead of September 1 was requested by John White and L. D. Perry of Edenton. This was referred to the Commercial Fisheries Committee, headed by Roy Hampton of Plymouth.

North Carolina Crabbing Good

Crabbing continues good in North Carolina waters, and several Manteo as well as Virginia buyers are getting the catch in the Croatan and Albemarle Sound section. Prices range around $2 a barrel, and buyers are now taking about eight to nine barrels from each boat.

With crabs plentiful as they now are, it would be no surprise if someone opens a picking plant in the vicinity of Manns Harbor, and such a prospect is encouraging, in that it would give a good income to a large number of pickers, mostly women.

A part of Felice Golino's fleet tied up at his dock in Patterson, Louisiana. Photo, courtesy Pettit Paint Co.

Norfolk News

THE full impact of war conditions upon the seafood industry in Norfolk and other ports of Tidewater Virginia is being felt this month. Only a few commercial trawlers are operating off the coast, and these are ranging largely from Chincoteague to Ocean City on the Atlantic. Some porgies, trout and croakers are made available to the local market when the trawlers come in for the week-end. This source of supply does not compare with that of the larger groups of trawlers operating off the coast during the Fall and Winter periods.

Since trawling is not permitted in the Chesapeake Bay, the boats, averaging about 65 feet in length, are sent to the pound nets to collect the catches. Blackout tests in the Hampton Roads area have caused slight delays in unloading. The boats usually come in at night and when lights have to be extinguished, there is some little difficulty in unloading in time to be back at the pounds for the early morning hauls of the fishermen.

At this time of the year crab meat is very much in evidence, and the price is good.

Haul Seiners Doing Well

A number of haul seiners of Saxis, Va., have made large catches of fish this season. Capt. Grady Rhodes received $1,000 for one day's catch. The catches consist of trout, croakers, and blues. Other haul seiners of Saxis are Captains Meel Marton, Everett Ewell, Chris Nealson, and Dulany Linten. It is said the fishermen are making more money on croakers than ever before.

At the wharf of John T. Handy Co., Crisfield, Md.: the "Vernon D" Capt. Harvey Drewer, and the "Annie Tucker", Capt. Dulaney Linton, both of Saxis Island, Va. The "Vernon D" is powered by a 30 hp. Palmer engine, with Hyde propeller; capacity, 10 tons.

Gulf

Increases Soft Crab And Salt Water Fish Catch

PRODUCTION of 2,827,000 pounds of salt and 264,000 pounds of fresh-water fish was reported for the first six months of 1942 for the principal production points in Alabama, Mississippi, Louisiana, and Texas.

In addition, these States produced 100,000 barrels of shrimp; 699,000 barrels of oysters; 18,000 dozen soft crabs; 5,751,000 pounds of hard crabs; 586,000 pounds of fresh-cooked crab meat; and 182,000 pounds of "Other Shellfish"—including processed crab meat, crayfish, frogs, sea turtle, squid, terrapin, turtle, and turtle meat—during the same period.

Compared with the first six months of 1941, the current year's production shows increases of 21 percent in salt-water fish, 1 percent in shrimp, 38 percent in soft crabs, and 65 percent in items listed under "Other Shellfish". There were decreases of 53 percent in fresh-water fish, 1 percent in oysters, 19 percent in hard crabs, and 11 percent in fresh-cooked crab meat.

The bulk of the shrimp and other fishery products were handled as fresh; the oysters and crab meat, for canning. Louisiana ranked, by far, as the greatest producing State; with Texas, least productive, contributing only salt-water fish, shrimp, and some oysters. Alabama was second in production among these Gulf States, outranking Louisiana over 3-to-1 in poundage of fresh-water fish handled.

Shrimp Boats Rescue Men

The shrimp fleet continues to play a valiant and valuable part in rescue work in the submarine attack zone in the Gulf of Mexico. One day last month more than 50 men were picked out of the shark-infested water or from life boats adrift under the blazing sun and brought into Morgan City where they were immediately placed in charge of the Captain-of-the-Port and temporarily quartered at the City Hall.

Shrimp Laws are Re-Drawn

Many representatives of the various branches of the shrimp industry were present at Baton Rouge the latter part of June to hear discussions before the Committee on Conservation concerning House Bill 539 which practically re-writes and incorporates in one law the many laws and parts of laws which have been passed to control, regulate and develop the shrimp industry of Louisiana.

C. R. Brownell, Representative from St. Mary Parish, is chairman of the House Conservation Committee. HB 539 was written by Percy Viosca of the State Department of Conservation and was presented to the State Legislature by Representative Bourg of St. Bernard Parish.

The proposed act describes and defines waters of the state as inside waters and outside waters and regulates the taking of shrimp from inside waters. Shrimp taken from outside waters of the state are not in any manner affected or controlled by the act. Closed seasons for inside fishing are fixed as comprising two seasons of 60 days each.

Surveying Need for Supplies

Charles H. Lyles, Fish and Wildlife Service marketing agent, met on July 9 at Biloxi with a group of packers and dealers to obtain information as to the amount of marine equipment and supplies needed to carry on the industry during the coming seafood season.

The information he compiles will be furnished to the War Production Board. The survey is being made in an effort to keep the industry in as near normal operation as is possible.

Government Takes Two Biloxi Boats

A 48-foot trawl boat recently completed by Roy Rosalis at the Union Fisheries Shipyard, Biloxi has been taken over by the Government. It is equipped with a 55 hp. Wolverine Diesel engine, and was the last of three boats built lately at the shipyard.

The Government has also taken over the snapper boat, *Bill Cruso*, owned by the C. C. Co.

Maryland

Oyster Planting To Insure Good Set

THE State Conservation Commission have finished planting 100,000 bushels of shells, on the oyster rocks of Maryland waters of the Chesapeake Bay and its tributaries.

In the past, seed oysters were transplanted from the head of the Bay to Tangier Sound. These seed produced fine oysters that were caught and sold, but in spite of the harvesting of these oysters, the Sound has continued to produce a good supply to date. It seems logical that the oysters now being produced in the Sound came as a result of the spawning of the seed oysters planted some years ago.

This year all the shells planted in the Sound went on two bars, Great Rock and Mud Rock. Three thousand seventeen bushels of spawners were planted on the shelled area on Mud Rock and 2,300 bushels on the Great Rock. It is realized that a large number of factors have a bearing in the setting of oysters, most of which are beyond control. However, it is clear that cultch and parent brood stock are essential and can be controlled. In supplying these two vital factors, the Commission feels it has done much towards insuring a set.

Southwest Middles Again Producing

Southwest Middles, famous for its big crops of oysters when the old pungies dredged in the Bay, has been out of production for a long time, so long as a matter of fact, that when the annual inspections of the Bay rocks were made each Fall, the place was not even visited. During the latter part of the season some of the scrapers who had made enough money in Tangier to spend one day prospecting, visited the Middles and found oysters plentiful. A large part of the bar is covered with stone piles that are destructive to dredging equipment, but between trips to the machine shops for repairs, catches of 150 bushels a day were reported.

There is an area of 3,083 acres in the Southwest Middles proper, with Church Creek Barnea Bar near by containing 1,179 acres. A little farther North is Kedges Straits, which was surveyed as covering 4,363 acres. Officials at the Conservation office are anxious to visit the area, for speaking of the Bay generally, the bars made up of stone piles have held up best under the intensive dredging, since the stone piles have served as cultch and generally protected enough spawners to keep production going, even if at a low level.

For instance, below Cedar Point there are quite a few oysters "in the stone down at Penbrook" while "out on the rip" where there is no stone, there are practically no oysters. Just what prospects the bar has for the future is not known for the reports are too sketchy to make any prediction. However, it will be visited prior to the next dredging season when a careful analysis and reports will be made.

In the years past, when the pungies and batteaus were emptied, they were filled with oyster shells for ballast. When they reached the oyster rocks they shoveled the shells on the rocks for the spat to catch, and there was never any lack of oysters. Now there is such a demand for oyster shells, that the large packers in Crisfield sell their shells for from $5,000 to $10,000 a year.

Bonito Mackerel Plentiful

Billy Savage, son of Capt. Crawford Savage of Ocean City, has been landing as high as 1,400 pounds of bonito, in one day. The bonitos find an avid market at 6 cents per pound. Bonito mackerel are said to be as thick as flies about three miles off shore and many of the boats have been making huge catches of these fish, which average about three pounds each.

Good Prices for Crabs

While there has been no glut of crabs this season, there have been enough crabs to meet the demand. Soft crabs have brought good prices, selling at 75c for culls, to $1.50 per dozen for jumbos. Hard crabs have been scarce all season and have brought from $10.00 to $12.00 a barrel, in the wholesale market in Crisfield. Crabmeat is also bringing high prices.

The "Effie M. Lewis", of Cambridge, Md., has a 4 cyl., 120-140 hp. Wolverine Diesel. The boat is 95' long, 24' beam, 7' draft, and is used in freight service.

Enforcing Law on "Green" Crabs

The State Seafood Inspectors are strictly enforcing the laws on "green" crabs which are placed in shedding floats to shed. A few years ago, as much as 50% of these crabs died. Now the inspectors see that small crabs are not allowed to stay in these floats. In 1939, the mortality was reduced to 20%, and the inspectors are determined that the loss shall be even less this season.

Inspector Gets Surprise

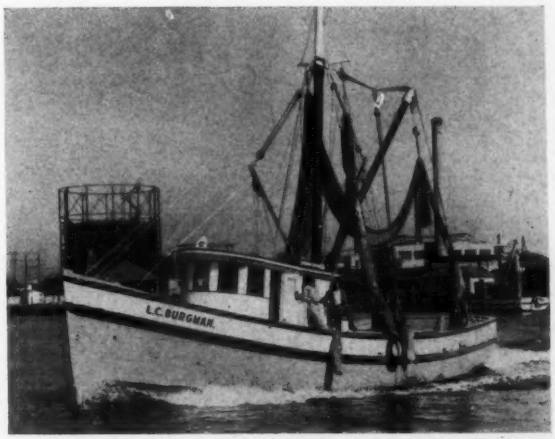
An inspector who was checking the crabbing grounds found a pole sticking out of the water with a rope attached, in an area where the placing of crab pots was forbidden. He pulled up the rope, and a shot gun went off, but the load missed the inspector. He demolished the crab pot, and is now trying to find the owner of the gun and crab pot.

Alabama Governor Refuses Permit for Netting of Menhaden

Gov. Frank M. Dixon, in declining a netting permit, declared recently that it was his opinion "the catching of menhaden fish should be outlawed in all waters contiguous to the coast of the United States."

The executive pointed out Alabama law prohibited menhaden fishing, in answer to a Pascagoula, Miss., firm's plea for a license, and declared that "I do not intend giving any license even if such were possible under the law."

Two protests, from Vincent F. Kilborn and Carl T. Martin, both of Mobile, were made on the basis of recent news stories in Mobile to the effect that the Mississippi firm planned to seek menhaden netting permits.



Shrimp boat, "L. C. Burgman", 55' x 16½', owned by Pacetti Fish Co., St. Augustine, Fla., and powered by a Caterpillar Diesel marine engine turning a 42 x 32 propeller.

Sam Linquata, left, mate on the "Natale III", of Gloucester, Mass., and Anthony Bertolino, engineer.

Small Boats Will Get Gas

THE Office of Price Administration has announced that small power boats in the eastern gasoline ration area would be allowed gasoline on a horsepower basis, permitting the owner of each boat to obtain enough fuel to keep it in commission and prepared for war duty if necessary.

Under the new ration plan effective July 22, inboard boats will receive 4 gallons of gas for each horsepower unit for six months—up to a total of 250 gallons. Outboard motors will be allowed 5 gallons for each horsepower for the same period up to a maximum of 40 gallons.

This will be the basic ration, OPA pointed out, and boats used for occupational purposes will be granted additional supplies. Boats actually engaged in defense work through the Coast Guard auxiliary, or used for training prior to entering such service, may apply for additional rations.

Senate Restores Funds for Fish and Wildlife

SUSTAINING the report of the Senate sub-committee on appropriations, the United States Senate has included $7,312,615 for the Fish and Wildlife service in passing the Interior Department's appropriation bill, according to the National Wildlife Federation. This restores $1,595,505, that had been slashed by the House and adds $172,000 for investigations for the purpose of finding a substitute for tin in the packing of fish and other food products.

The "St. Teresa", Capt. Tom Parisi of Gloucester, Mass., is equipped with a 180 hp. Cooper-Bessemer Diesel, Shipmate range, Hathaway winch, Kinney clutch, Hyde propeller and General Communication direction finder.

Florida

Industry Aids Suggested by Committee

PERSONS engaged in commercial fishing and those necessary in handling of fishery products would be exempted or deferred from military service under a recommendation of the fish committee of the Florida State Chamber of Commerce's agricultural division, as made public July 10 in Tallahassee.

In a report to William L. Wilson, operations chairman of the Chamber division, the fish committee, headed by State Conservation Commissioner S. E. Rice, also urged modification of the trucking return load order of the Office of Defense Transportation insofar as it affects transportation of seafoods. Pointing out that each catch of fish must be trucked to market with the least possible delay, due to a lack of adequate freezing and storage facilities, the committee said this does not always allow time to arrange for return truck loads.

The committee further recommended that military authorities be asked to call for bids on Southern fish, particularly Florida fish; that uniform closed seasons throughout the State conforming with spawning periods and without conflict with local laws, be supported; that study be made of the size of mesh that should be used in nets; that high priority ratings be granted for materials needed by the industry, particularly those needed in the building and repairing of boats and for the preservation and transportation of sea foods; and that special attention be accorded the preparation and packing of all sea foods.

OPA Excepts Sponges As Landed

Sponges as landed by the fishermen and sold are classed as fresh fish and seafoods, and therefore are exempt from the OPA maximum price regulation. The theory back of this is that every commodity in the hands of the first producer is exempt, and only when it is processed is it covered by the General Maximum Price Regulation.

Boats Give Old Tires for Salvage

Boats of the Tarpon Springs sponge fleet donated about a thousand pounds of old automobile tires during the first week of the Rubber Salvage campaign. These old tires formerly were used as buffers to protect the vessels from direct contact with the docks. As other boats came in, it was expected that the rubber scrap pile would be tremendously increased.

Sponge Sales Set Record

Sales on the Tarpon Springs, Fla. sponge exchange market broke all records for a six months period, with sales totaling $870,897.69 through June of this year compared to $613,933.29 for the same period in 1941.

Nine sales during the month of June brought $156,091.72, with sheepswool, grass and yellow sponges from diving and hook boats sold. The June, 1941, total was $64,714.

Sponge Exhibits Now in Museum

The sponge industry of Tarpon Springs now is represented by a permanent exhibit in the American Museum of Natural History in New York, Dr. Roy W. Milner, curator of maritime life of the museum and president of the New York Academy of Sciences reported while here recently.

Menhaden Plant Damaged by Fire

A fire at the Smith menhaden reduction plant at Fernandina last month resulted in damage estimated at $30,000. Two large wooden buildings, various machinery and quantities of fish scrap and oil were destroyed.

The fire, which was attributed to spontaneous combustion, started in the drier building of the fish reduction plant, and when fed by the highly inflammable fish scrap and oils, spread rapidly to envelop the entire building.

Sponge Fishing Regulations

To cope with the ban restricting vessels of the sponge fleet from remaining on the Gulf during the hours of darkness, sponge boat owners and crews hope to work out a plan with the Coast Guard officials that will enable the fleet to continue to operate.

Engineer Sebastian Moceri, left, and Capt. Matteo Moceri, of Gloucester, who operate the 99-ft. redfish dragger, "Richard J. Nunan", shown at right, for her owner, Louis A. Scola of Boston. The vessel carries 105,000 lbs. of fish and an 8-man crew. She is powered with a 200 hp., 325 rpm., 6 cyl., 10 x 13 Atlas Diesel, direct reversible with sailing clutch. Equipped with Submarine Signal Co. Fathometer, Hallicrafters direction finder, Hathaway winch, Kinney clutch, Surrette batteries, Roebling wire rope and Fairbanks-Morse generator. Uses Gulf fuel oil.

Gloucester

Whiting Fleet Having Record Season

WHITING, also known as New England hake and silver hake, boomed the Gloucester waterfront during the month of June, when 177 trips with 3,630,000 pounds were landed in Gloucester. In June of 1941, total whiting landings were 72 trips with 1,530,000 pounds.

During the week ending June 27, a record was made when 58 trips were landed with 1,316,000 pounds. In one day alone 600,000 pounds came in.

Boats engaged in this type of fishing made big money for the month. One local craft made as high as $280 per man in a week's fishing. Many a boat crew received $100 a week for their labors. Before the second week in June, some 35 local draggers were engaged in catching whiting.

Whiting are taken like redfish with drags. However, there is more work for crews than on redfish in that to demand the highest price for them, the fish must be headed and gutted.

Dealers sell whiting mostly in the frozen fish form, either as headed and gutted fish, or as what is known to the trade as butterfly whiting. In this latter form, the head is removed, and the fish is split like a mackerel, the bones are removed, and the result resembles a butterfly with wings spread open. The fish are packed in 15-pound boxes for the trade. Frozen whiting fillets are also sold, in quantities.

Among the firms here handling whiting are the Gorton-Pew Fisheries Co., Ltd., Progressive Fish Co., Colonial Seafoods Corp., Cape Ann Fisheries, Inc., Empire Fish Co., General Seafoods Corp., Mariner Fish Co., Adams Fillet Co., Frank Bertolino & Sons, American Fillet Co. and North Shore Fillet Co.

Mackerel Fishing Good

On June 29, approximately 400,000 pounds of mackerel were landed at Gloucester from nine boats, which was the best mackerel day of the season to that date.

The biggest trip so far this season was one of 120,000 pounds brought in by the *Santa Maria*, under the command of Peter Mercurio.

The best mackerel catch for one day's fishing was made by the *Carlo & Vence*, Capt. Anthony Favazza, which brought in 111,000 pounds, netting each man $188 for the day.

The high-line mackerel seiner for this year is reported to be the *Saint Ann*, Capt. Anthony Favalora skipper. Their share exceeds $2,000 from the first of April through the first week in July.

Theriault Sells "American"

Capt. Simon P. Theriault has sold his *American* to a group including Capt. James Abbott, who has been her skipper. Capt. Theriault also has the dragger *Joffre*, which he commands. This vessel landed a big 10-day trip on June 24, when it stocked $5,000, which netted the crew $270 each.

"Fiori and Marino" Now Hails from Gloucester

Capt. Way D'Eon is skippering the dragger *Fiori and Marino*, formerly of Boston, and now yellow-tail fishing out of this port.

Capt. John Kocsik and his "Ranger", operating out of Belmar, N. J., Marine Basin. The boat is powered by a Type W 100 hp. Mack Mariner Diesel, with a 2:1 Twin Disc clutch, swinging a 28 x 22 Hyde propeller, turning 850 rpm., using a Columbian shaft. The boat is equipped with Exide batteries, Eclipse exhaust hose and a 25 watt Ray Jefferson ship-to-shore telephone.

JUNGLE FIGHTER!

LIKE a wire entanglement, a matted thicket lies across our Army's path to a vital objective. "Bring on the tractors!" is the call of the fighting Engineers.

With tusks of steel and more power than a herd of elephants, the "Caterpillar" Diesels move in. With broad, deep-grousered tracks providing a firm foothold, they drive their bulldozers forward in mighty thrusts—toppling trees, uprooting stumps, sweeping them aside together with brush and rocks.... The Infantry, guns and tanks are going through!

On scores of other battle-front jobs, "Caterpillar" Diesel Tractors are helping to deliver similar blows for the cause of free peoples. Building military roads, causeways, bridge-heads, fortifications, gun emplacements; rescuing mired trucks and disabled tanks; moving heavy artillery—are some of the assignments. Because "Caterpillar" Diesels are built with the power, stamina and dependability to see things through!

And there are many more on the way! As fast as "Caterpillar" production can turn them out, *all* "Caterpillar" products — tractors, motor graders, engines and electric sets—will be available to serve in this all-out war.

Those already doing useful work in supporting fields—oil, mining, lumber, construction, manufacturing, transportation, agriculture and other industries — will have all the replacement parts and mechanical service "Caterpillar" and a world-wide dealer organization can provide to *keep them fighting.*

CATERPILLAR DIESEL

REG. U.S. PAT. OFF.

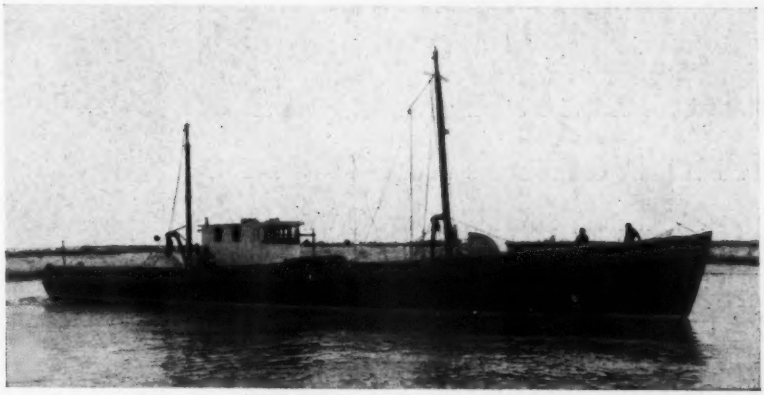
CATERPILLAR TRACTOR CO. • PEORIA, ILLINOIS

TO WIN THE WAR: WORK—FIGHT—BUY WAR SAVINGS BONDS!

WOLVERINE

powers this trawler and many other fishing vessels in

VIRGINIA



The "Manchonoch", owned by Capt. B. Felton Forrest, Jeffs P. O., Va., was converted from a 110 ft. sub chaser to a trawler. She is equipped with a 210 hp. Wolverine Diesel engine. This engine was installed in 1940, and in 1941, due to its highly successful operation, a duplicate installation was made by Capt. Forrest in his "Cherokee", a trawler of the same dimensions.

Wolverines meet the requirements of all types of fishing boats, large and small. They are sturdy, simple, reliable, economical, long-lived, and designed for fishing service.

Write for Catalog No. 135

WOLVERINE MOTOR WORKS, INC.

Union Avenue, Bridgeport, Conn.

New Bedford First Swordfish Landings Arrive Early

EIGHT days ahead of last year, the first sworders arrived in New Bedford on June 29 with a total of 56 swordfish, which are reported to have sold for about 35 cents a pound.

The four boats with their trips were *Santina*, 23 fish; *Bethlehem*, 17; *Constellation*, 10; *Sea Rover*, 6. All caught their fish by ironing them.

Captain Cruz Lost

Capt. M. L. Cruz, Jr., of New Bedford, skipper of the scalloper *Ronald and Dorothy*, disappeared from his vessel on June 19 between New Bedford and Woods Hole. His loss was reported by the nine members of his crew when the vessel returned to port.

His body was found July 1 on the beach at West Falmouth. Investigation has led to the belief that he fell over board. He was thirty-one years old, and had been a fisherman since he was a young boy. Among his previous commands were the *Francis Manta* and *Palmers Island*.

"Irma Pauline" from New Jersey

The 84' *Irma Pauline* recently built by Harry Mogck of Cape May, N. J., for Capt. Carl Friesenborg of Wildwood, is now operating out of New Bedford under command of Capt. Olaf Anderson. The vessel is powered with a 180 hp., 400 rpm., 6-cylinder, 9 x 12 Superior Diesel, direct reversing, with sailing clutch.

"Growler" Being Outfitted

The new 70-ft. dragger *Growler*, which was launched last month by Newbert & Wallace, Thomaston, Maine, for Capt. John Salvadore of Fairhaven, was expected to be ready for fishing the middle of this month after outfitting at the Hathaway Machinery Co. She was designed by Albert Condon, and has a capacity of 75,000 pounds.

Palmer Installations

A new 40 hp., RND4 Palmer Diesel with 2:1 reduction gear, has been installed in Capt. Edward Sylvia's lobster boat. A 9 hp., RND1 Palmer Diesel auxiliary for operating fish hoist, pump, etc., has been installed in the dragger *Palestine*. Both sales were handled by Rapp-Huckins Co. of Boston.

New Macks for Three Boats

Recent Mack Mariner Diesel installations in the New Bedford fleet by Rapp-Huckins Co., Boston, include the following:

Dragger *Bessie*, Capt. John Vieira, powered with a model 605W, 100 hp., furnished with Twin Disc 3:1 reduction gear and 3:1 power take-off, Harrison heat exchanger and 32 volt Exide battery, and turning a 38 x 28 Hyde propeller at 500 rpm., continuous to give a boat speed of 12.1 mph.

Dragger *Eleanor May*, Capt. John Varona, powered with a model 457W, 70 hp., continuous, and furnished with Twin Disc 3:1 reduction gear and direct drive power take-off, Harrison heat exchanger and 32 volt Exide battery,, and turning a 36 x 24 Hyde propeller at 500 rpm., continuous to give a speed of 9.8 mph.

Schooner *Bethlehem*, Capt. Manuel Avila, now swordfishing, equipped similarly to *Eleanor May* with the exception of the propeller which is a 35 x 24 Federal Mogul, giving a speed of 9.6 mph.

600-Lb. Turtle

A turtle weighing 600 pounds was brought into Wychmere Harbor after it was found by Rubin Kendrick's crew in a mackerel net as they gathered their daily catch in Nantucket Sound. The turtle was towed in and tied to Mr. Kendrick's dock.

Dragger Rescues Two

Two men, after drifting in an open dory for twenty-four hours without food or water, were rescued 15 miles off Scituate by the dragger *Maria del Sacorso*.

NETTING

The Name That Means Extra Long Service in Fish Netting

Ederer Fish Netting is known throughout the fishing industry for its long wearing qualities. It has stood the test under all conditions on every fishing ground. That's because Ederer Nets are skillfully manufactured to highest standards, and scientifically designed to fit every fishing requirement. They can be relied on to give the finest in netting service.

R. J. Ederer Co., 540 Orleans St., Chicago

Branches

GLOUCESTER - PHILADELPHIA - BALTIMORE - MIAMI - BILOXI

Representatives

Flood & Calvert, Galveston, Texas — Howard C. Johnson, Erie, Pa.

D. A. Turner, Port Huron, Mich. — P. J. Block, Milwaukee, Wis.

NETTING

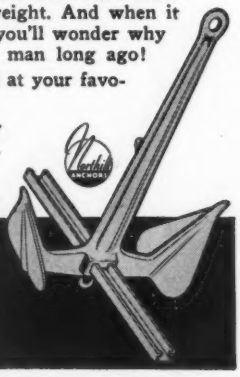
JUNK WANTED

Help Uncle Sam in his war need for metals. Sell your old style anchor to the junk man. After all, 90% of the iron in your old anchor is just wasted weight.

Replace with a new Northill Utility Anchor and get holding power unsurpassed with but a fraction of your old anchor's weight. And when it comes to ease of handling, you'll wonder why you didn't call in the junk man long ago!

Make a date with a Northill at your favorite ship chandler's.

NORTHILL COMPANY
Subsidiary of The Garrett Corp.
Inglewood, Calif.



NORTHILL ANCHORS

The gillnetter, "Bob S.", owned by William Sellman, Manistique, Michigan, is 50' x 14', and equipped with 75-90 hp. Kahlenburg engine, Curtis air compressor and Crossley net lifter.

Wisconsin Retains Mesh Size

THE Wisconsin Conservation Commission, meeting June 9 in Madison, voted to retain 2½ inches as the legal minimum mesh size for nets in the State. The decision ended a five-month controversy during which an attempt had been made to lower the minimum size to 2⅜ inches.

Recommendations Presented

Commercial fishermen, producers, wholesalers, box manufacturers and freezer operators, attending a meeting June 24 in Marinette at the request of the Fish and Wildlife Service presented recommendations for the good of the industry to Fred H. Meisnest, economist of the Service, as follows:

That Wisconsin and Michigan Conservation and Agriculture Departments take action to prohibit dumping of fish on river banks and require the use of containers by law.

That all fish, whether intended for human or animal consumption, be handled as human food.

That uniform and strict supervision be made of fish houses to insure cleanliness.

That no attempt be made to eliminate the 10, 15, 20 or 25 pound boxes now used.

That the inside dimensions of the 10-pound box should be 14¾ by 9½ by 3 inches and of the 25-pound box, 18 by 11½ by 5¾ inches.

That jumbo smelt be identified as those measuring eight or less to the pound.

That any package of fish going out to market except that consigned to cold storage shall be iced both top and bottom between April 15 and November 15 of each year.

That any fish cleaned or filleted shall be washed before going to the freezer.

That freezing temperatures be maintained from 5 to 15 degrees below zero Fahrenheit, and that storing temperature be maintained from zero to 5 above zero.

That fish in cold storage be packed away from the walls of cold storage rooms to leave sufficient space for air circulation, and that no defrosted fish shall be refrozen.

Recommendations for container markings were set forth as follows:

Date received; species, lot number; method of packing such as layer packed, block frozen, pan frozen in layers, pan frozen in blocks and single frozen; net contents; type of fish, such as round, heads off, not dressed, headless and dressed, dressed-heads on and fillets; and the name and address of each packer.

At the conclusion of the meeting, a committee was named to draft recommendations to the National Selective Service Board on deferments of men in the fishing industry.

Chicago Receipts for May

About 4,793,000 pounds of fresh and frozen fishery products were received during May at the Chicago Wholesale Fish Market. Seventy-nine classifications of seafood—fish and shellfish, fresh and salt-water—from twenty-four states and six provinces of Canada, were sent to this market. Of the total receipts, 2,575,000 pounds were fresh-water fish, 1,470,000 pounds salt-water fish, and 748,000 pounds were shellfish.

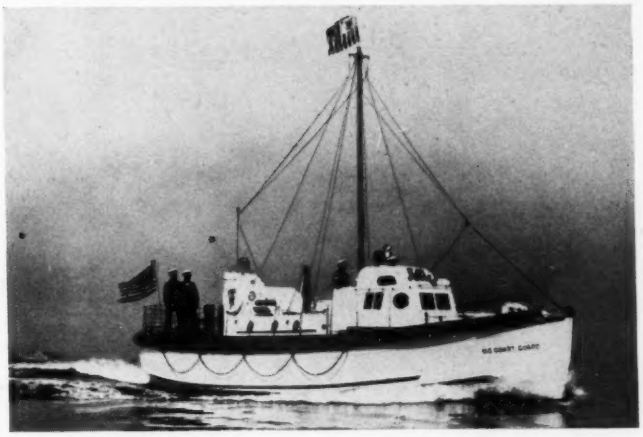
BUDA - LANOVA

Heavy Duty Diesels

Serve the U. S. COAST GUARD

THE U. S. Coast Guard, friend of many a storm-threatened fisherman, has an outstanding service record for saving lives and ships under the most severe weather conditions. We are proud of the part that Buda-Lanova Heavy Duty Diesel Engines have played in furnishing dependable power for many of the Coast Guard's fleet of boats.

A typical Coast Guard installation is represented by the 52 ft. lifeboat shown here, which is powered with a 6-cyl., 150 H.P. Buda Diesel, and is equipped with a Buda Diesel-Electric Generator Set which furnishes electric power for lights, horn, etc.



If you are looking for proved dependability, low operating and maintenance costs for your fishing fleet, Power and Re Power with Buda-Lanova Heavy Duty Diesels!

THE BUDA CO. 15400 COMMERCIAL AVENUE HARVEY (Chicago Suburb) Ill.

Specify BUDA LANOVA DIESELS for More Horsepower per Dollar!

Long Island Tuna

AN 11-foot, 649-pound tuna delivered at Fulton Market on June 21 was the largest recorded in three years. It was caught in a commercial trap off Montauk Point. The largest tuna on record was a 14-foot, 1600-pounder caught off New Jersey several years ago. The average taken at this time of year is 150 pounds.

First Broadbill

During the entire season, last year, only two broadbill swordfish were taken. Captain Bob Foster of Freeport, veteran skipper of the *Viking III*, made the first catch this season, which tipped the scales at 219 pounds.

June 26 was one of the greatest swordfishing days ever known off Montauk Point. Nine commercial boats harpooned 32 fish, and Perry Duryea's boat brought in six.

Weaks and Butterfish

Brooks Brothers of Orient made a big catch of weak-fish in their traps in Hallocks Bay the first of the month which netted well. The weaks are making a better showing.

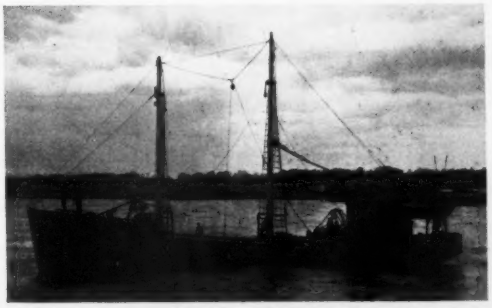
At Orient Point, LeRoy G. Edwards, Jr., with his new trap-fishing business there, has been shipping very good catches of butterfish. The big run usually strikes in during the late Fall in the Sound.

A big run of butterfish struck the traps off Gardiners Island the second week of July. A very good catch of porgies has been made by some of the trap-fishing firms also.

More Blues

Fishermen have been getting more bluefish, some up to seven and eight pounds, than in several years. The prospects are that the season will continue to produce more blues.

Lobsters are making a good showing and prices are first class. Eels are more plentiful than in years and of fine size. Clams, both hard and soft, are meeting the demand.



OIL-FIRED SHIPMATE

on "Philip & Grace"

Proves Satisfactory in All Weather

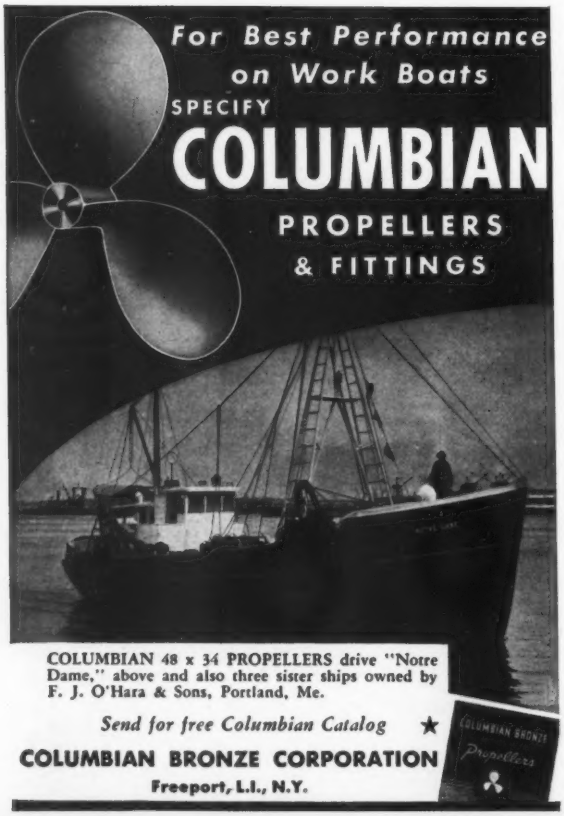
Capt. Philip Curcuru, owner of this new Gloucester dragger, says: "Our oil stove has been working fine. We have been going through some bad weather and it has been working real good."

That speaks well for the new No. 10350 Shipmate Oil Burning Range that has been developed to meet the exacting requirements of fishing boats.

Made in six models, these ranges operate on regular Diesel oil. Their initial cost is low, and their operating and maintenance expense is exceptionally reasonable.

THE STAMFORD FOUNDRY COMPANY

Established 1830 Stamford, Connecticut

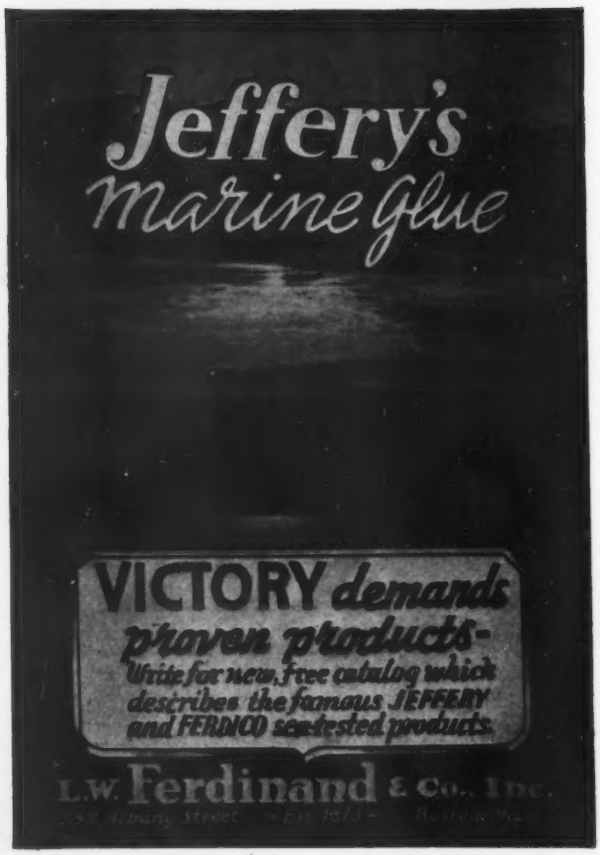


COLUMBIAN 48 x 34 PROPELLERS drive "Notre Dame," above and also three sister ships owned by F. J. O'Hara & Sons, Portland, Me.

Send for free Columbian Catalog ★

COLUMBIAN BRONZE CORPORATION

Freeport, L.I., N.Y.



Boston Landings for June

(Hailing fares. Figure after name indicates number of trips.)

Acme (7)	118,800	*Lark* (1)	71,000
Adventure (3)	249,000	*Lawrence Scola* (7)	146,500
Adventure II (1)	83,000	*Leonardo* (5)	75,000
Alden (1)	45,000	*Liberty*	76,200
Alice M. Hathaway(3)	179,000	*Linta* (5)	196,000
American (1)	62,000	*Maine* (4)	671,000
American Eagle (2)	84,000	*Mao II* (3)	53,300
Annie (7)	102,500	*Marcella* (2)	107,000
Annie & Josie (8)	132,700	*Marie del Sacorso* (8)	128,400
Antonina (1)	32,000	*Marjorie Parker* (1)	30,000
Bethulia (4)	194,000	*Maris Stella* (3)	301,000
Bettina (3)	232,000	*Mary Grace* (2)	114,000
Billow (3)	550,000	*Mary & Jennie* (6)	102,100
Boston (3)	348,000	*Mary W.* (4)	152,000
Breaker (3)	470,000	*Mayflower* (7)	117,000
Breeze (3)	349,000	*Neptune* (4)	474,000
Brookline (4)	503,000	*New Bedford* (2)	102,000
Cambridge (3)	353,000	*New England* (9)	166,900
Cape Ann (4)	256,000	*Newfoundland* (1)	76,000
Capt. Drum (3)	106,000	*Newton* (5)	828,000
Carlo & Vince (2)	80,000	*Olympia* (2)	117,400
Carmella Maria (10)	34,800	*Philip J. Manta* (2)	47,000
Cla'ce B. Mitchell (7)	111,600	*Plymouth* (4)	404,000
Comber (2)	165,000	*Princess* (4)	51,100
Cormorant (8)	623,600	*Quincy* (4)	463,000
Dawn (1)	47,000	*R. Eugene Ashley* (3)	171,000
Dorchester (5)	506,000	*Rainbow* (2)	134,000
Doris G. Eldridge (3)	165,000	*Rita B.* (3)	220,000
Ebb (3)	369,000	*Roma* (6)	102,900
Eddie & Lulu M. (8)	130,200	*Rose Marie* (4)	198,000
Eleanor (2)	68,000	*Rosie* (7)	140,900
Ethel (5)	68,900	*St. Provvidenza* (10)	63,900
Ethel B. Penny (2)	62,000	*Salvator* (5)	80,000
Eunice & Lillian (2)	141,000	*San Calagero* (6)	112,800
Eva II (6)	88,100	*Santa Maria* (2)	66,000
Fabia (3)	346,000	*Sea* (2)	204,000
Fannie F. Hickey (5)	149,900	*Sea Hawk* (1)	85,000
Flow (3)	359,000	*Sea Ranger* (3)	165,000
Frances C. Denehy (3)	205,000	*Sebastiana C.* (3)	139,000
Frank F. Grinnell (4)	184,000	*Sebastiana & Figli* (5)	78,300
Frankie & Rose (2)	131,000	*Shamrock* (1)	68,000
Gert. L. Thebaud (1)	38,000	*Skiligolee* (3)	124,000
Gertrude Parker (3)	222,000	*Spray* (3)	322,000
Golden Eagle (1)	85,000	*Superior* (1)	43,000
Gossoon (2)	133,000	*Thomas Whalen* (4)	402,000
Hekla (2)	134,000	*Two Pals* (1)	46,500
Ivanhoe (3)	127,000	*Vagabond* (2)	118,000
J. B. Jr. II (6)	143,500	*Vandal* (3)	258,000
Jennie & Julia (2)	69,000	*Venture II* (2)	152,000
Joffre (1)	117,000	*Wamsutta* (2)	135,000
Josephine & Mary (3)	142,000	*Wm. H. Killigrew* (1)	84,000
Josie M. (8)	146,300	*Wm. J. O'Brien* (4)	409,000
Josie II (2)	36,100	*Winthrop* (4)	466,000

Mussel Cultivation

(Continued from page 6)

7. Only a very small original investment will be necessary to establish a series of mussel set collectors. A few sticks or poles, chicken wire and a few galvanized nails will be all the material necessary. Since the cultivation of mussels will be carried on in inshore or protected waters it is not necessary to possess any expensive floating equipment. A small scow with a hand winch on it would answer the purpose.

In the northern waters mussels of the marketable size can be produced in about 18 months. In the case of oysters, however, a period of four or five years should elapse before they are large enough to be marketed.

According to observations on oysters of Long Island Sound carried on for several years, the edible portion of these animals usually constituted less than 10% of their total weight. In mussels, however, the edible portion constitutes about 50% of the total weight.

Fulton Market Wholesale Prices

Specie	June 1-6	June 8-13	June 15-20	June 22-30
Bluefish	.. ..	.18-.22	.07-.28	.08-.40
Bonito	.06½-.10	.04-.07	.06-.12	.06-.10
Butterfish	.04-.18	.02½-.14	.05-.12½	.03-.20
Codfish, Stk.	.06-.14½	.02-.13½	.05-.19½	.09-.18
Codfish, Mkt.	.06½-.10	.06-.09	.04½-.12½	.06-.10
Croakers	.04-.07	.04½-.06½	.04-.06	.04-.06
Eels	.04-.18	.. ..	.03-.10	.. ..
Flounders	.02½-.20	.01½-.15	.02½-.18	.02½-.18
Fluke	.10-.16	.08-.15	.10-.16	.10-.17
Haddock	.05-.10	.04-.10	.04-.12	.02-.09
Hake	.01½-.09½	.06-.08	.01½-.09	.02-.10
Halibut	.18-.24	.20-.23	.21-.24	.20-.24
King Whiting	.02-.08	.03-.10	.. ..	.03-.10
Mackerel	.06-.20	.06-.17	.06-.22½	.03½-.16
Pollock	.07-.10	.06-.09	.07-.10½	.07-.10
Salmon, Pac.	.22-.28	.22-.28	.22-.25	.20-.28
Salmon, Atl.	.22-.33	.20-.28	.20-.25	.20-.35
Scup	.02½-.07	.02½-.05	.02-.08	.01-.08
Sea Bass	.06-.15	.06-.13	.06-.16	.04-.15
Sea Trout, G'y	.03-.25	.04-.25	.05-.25	.02½-.23
Shad	.03-.12½	.02-.10	.07-.07	.02½-.07
Sole, Gray	.05-.12	.08-.11	.11-.12½	.06-.13
Sole, Lemon	.08-.10	.08-.10	.11-.14	.15-.15
Striped Bass	.20-.25	.22-.22	.22-.22	.08-.28
Swordfish	.. ..	.. ..	.50-.60	.35-.65
Tilefish	.08-.08	.10-.10	.05-.10	.. ..
Tuna	.. ..	.. ..	.20-.25	.15-.19
Whiting	.01-.05½	.01-.06	.02½-.06	.01-.08
Yellowtails	.04-.11	.03-.11	.04½-.10	.03-.09
Clams, Hard	1.50-10.00	1.00-10.50	1.25-10.00	1.25-10.00
Clams, Soft	1.50-3.50	1.00-2.50	1.75-2.75	1.00-2.75
Conchs	1.50-3.50	1.00-3.25	.50-1.50	.50-1.50
Crabs, Hard	.35-3.00	1.00-2.50	1.50-3.00	1.25-3.00
Crabs, Soft	.35-1.50	.35-1.75	.40-2.25	.30-2.00
Crabmeat	.45-.85	.50-.85	.60-.95	.45-.85
Lobsters	.15-.29	.29-.32	.30-.37	.20-.38
Mussels	.60-.75	.50-.75	.60-.75	.60-.75
Scallops, Sea	2.15-2.30	2.30-2.40	2.40-2.40	2.50-2.50
Shrimp	.20-.32	.20-.28	.20-.31	.21-.30
Squid	.08-.15	.08-.12	.12-.14	.10-.14
Frogs Legs	.85-.90	.75-1.00	.50-.75	.60-.90

Council Officials Renamed

MATTHEW J. GRAHAM was re-elected president of The Fishery Council at the recent annual meeting, it was announced by A. E. Kessler, executive secretary. It will be the second term for Mr. Graham, who is a partner in the firm of Chesebro, Robbins & Graham, Inc., of New York.

For the fourth time, Harry Weinstein was named vice-president of the Council. He is head of the Fish Forwarding Co., Inc., of New York. Sol Broome of Sol Broome & Co., Inc., was selected for his fourth year as treasurer, while Samuel R. Keats, executive with Teddy's, The House of Seafood, will serve his fourth term as secretary.

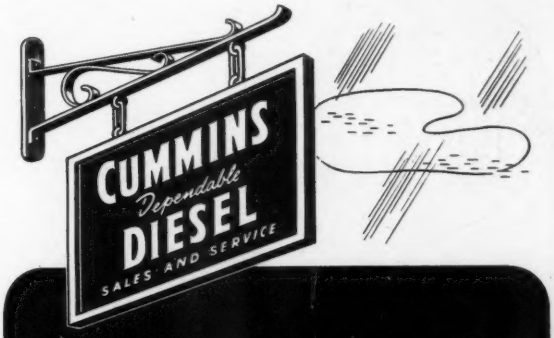
The meeting high-lighted the success with which the Council's activities have been pursued and the growth of the organization in three years.

In honor of his splendid service as president of the Council, Mr. Graham was presented with a barometer and pen set. The presentation, on behalf of the Council, was made by Mr. Weinstein.

In his annual report, Mr. Graham commended the fine work and spirit of various committees: the Camp Fund drive under Chairman Weinstein and Assistant Joe Cantalupo; the War Savings Bond campaign under Chairman Henry Robbins and Assistant Cantalupo; and the Social Affair Committee under Joe Carter, all came in for commendation.

United Press

The United Press, going to 300 papers, used the Council's "Mackerel and Flounder are Bargain Buys Now" story with the Council's mackerel picture. This is only one of the many instances of publicity given the fishing industry through the Council's releases to newspapers and magazines.



CUMMINS DEALER SERVICE BUILT AROUND THE . . .

Customer's Needs

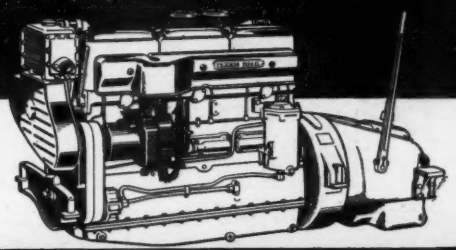
Who is better qualified to specify the kind of service he needs than the man who operates an engine? Who is better qualified to judge service than the owner?

That's why in 1933, the Cummins Customer Service Policy was built around the owner's needs . . . that's why it has continued on that same basis ever since.

One central parts stock at all major points reduces unnecessary duplication of parts . . . conserves the available supply. During the War, this is important.

Cummins was the first to establish this customer service policy . . . just as the Cummins Diesel was the first high speed, field-tested diesel to be accepted in heavy-duty, long line truck operations.

Today, Cummins Dependable Diesels are found in all branches of industry. They are doing their part in the War as standard power equipment for all kinds of dirt moving machinery and various other types of service. Their dependability and low cost operation are a matter of record in all types of heavy-duty work . . . automotive, industrial and marine. Cummins Engine Company, Columbus, Indiana.



CUMMINS DIESEL ENGINES, INCORPORATED
1106 Shackamaxon Street, Philadelphia, Pennsylvania

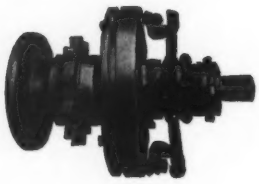
CUMMINS DIESEL ENGINES OF NEW ENGLAND, INC.
76 Rogers Street, Cambridge, Massachusetts
7 Wethersfield Avenue, Hartford, Connecticut

KINNEY CLUTCHES

for

TRAWLING GEAR

and other auxiliaries



Dealers

GLOUCESTER, MASS.
United Fisheries Co.
NEW BEDFORD, MASS.
Hathaway Machine Co.
SAYVILLE, N. Y.
Long Island Motor Wks.
NEW YORK, N. Y.
Frank Tracy, Inc.
NORFOLK AND RICHMOND, VA.
Curtis Marine Co.

on both

SMALL and LARGE BOATS

Kinney Manufacturing Company
3561 Washington Street
Boston, Mass.

Kinney Clutches have proved their dependability in years of service on fishing boats.

Write to us or to the nearest dealer listed for Bulletin and prices.

Bethanized Trawler line

combines strength with maximum corrosion-resistance

Bethanized trawler line is every bit as strong, tough and fatigue-resistant as uncoated rope. Yet every wire in bethanized trawler line is fully protected against corrosion by a vise-tight coating of 99.9+ per cent pure zinc. Why is this possible? Because a bethanized coating is applied by electricity (without the use of high temperatures) leaving the physical properties of the steel unchanged, and building up a tight, even zinc armor over every inch of the rope wire.

BETHLEHEM STEEL COMPANY

Vineyard Fishing Fine

By J. C. Allen

IN the midst of a world that is being split from knightheads to quarter-bitts by war, it is curious to take a survey and observe just how much there is to be thankful for. The log of the sea-skimmers in these latitudes for the past month is one of those singular items.

For the fishing has been fine, and the market has been something to talk about, or even post-card home. Trap gear in Vineyard Sound has taken more sea bass and shad than even old-timers can recall, and the bass struck unusually early. The common varieties of fish have acted a trifle abnormally, in some respects, for although the seiners have set around mackerel almost alongside of the traps, the latter have taken only a few. Same with the scup, which usually fill the twine. Yet, in spite of these things, the going has been very favorable for the trap-fishermen, up to date.

Draggers Doing Well

Draggers, especially the smaller craft, have had a mighty good month, barring one week, when the fog settled down. They got a better price for yellowtails than has been paid for years. Even the smallest kind of fish were salable, because the gang was short of lobster-bait, and nothing was wasted. Cod has not been too plentiful, not where the netters operate. But a Gloucester schooner, rigged old-fashioned for hand-lining, came in to Sam Cahoon's and hoisted out a devil of a catch of cod one week. Say what you please, the fish are not foolish all the time. The dragging simply drives the cod on to the ledges, and they stay there. There can't be any other explanation for it. If it was a matter of feed alone, it would affect the haddock as well, but it doesn't. The haddock has run well along with the pugs. Seems as if the sense must have been scared clean out of the critter when the devil grabbed him, some time in the past.

Lobsters on Hog-Beds?

Lobsters have stacked up rather better this past month than they did in May. This is natural, no doubt, with the schools moving, although the old-timers swear that we don't get the schools any more, as they used to run. We don't attempt to offer any explanations about these critters. They fool the best of the fishermen, and it has been many a year since we baited a string of gear. If we were to shove off in our old dory today and try to catch lobsters enough to eat, we know that instinct, and some peculiar instinct, would send us to the spots where the old-timers always said they couldn't be caught. That's on the hog-beds. The logic of the old-timers was that the lobster preferred the black mussel to anything else in the feed line, and that no bait under the sun would tempt the critter if he was on mussels. Therefore, they set their pots all around the hog-beds, to take 'em as they came and went, but they never set a pot on the mussels.

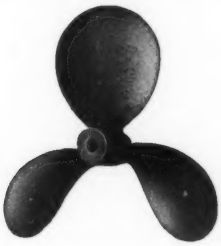
In these days of our Lord, there has been plenty of dragging on the soft bottom, and the mussels disappeared for a time, which probably had nothing to do with the dragging. But now, the mussels are back again, and the lobster, being a critter that enjoys being left alone, is probably sitting on the hog-beds, enjoying himself. If a pot is baited with mussels, which is a devil of a job, the lobster will leave the unshucked mussels, and tackle those that have been cracked and shucked. Providing, of course, that the old-timers were correct, we are not taking any part in the discussion.

Shoal-Draft Boats Rigging Pulpits

Reports from the big shots in the fisheries indicate that the deep-legged swordfishermen will not fit out this season, and they can hardly be blamed for that. But plenty of the shoal-draught boats are rigging their pulpits and top-m'sts, in preparation for whatever may offer. We observed a quotation from Fulton Market, of seventy-five cents a pound for sword at the caplog, which indicates that someone got a fish or two, but that the supply is slim.

The swordfish is an alien critter according to all reports, being spawned somewhere around the Canary Islands, or in the Mediterranean, and it may be that they will decline to remain neutral in the present war. Maybe they've all been killed by depth charges, or torpedoes, maybe anything, but some of 'em are likely to hit their Summer cruising ground.

The "High Liners" must have efficient, dependable equipment



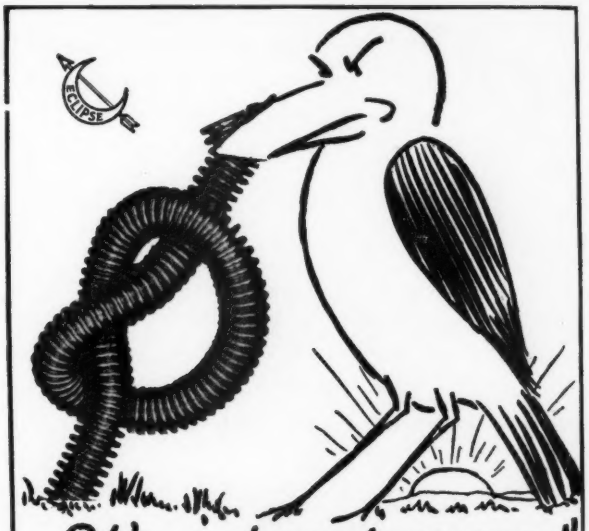
52″ and LARGER

Where lives as well as profits are at stake both owners and skippers realize the necessity of using propellers of proven quality. That is why you will find Hyde Propellers on the "high liners" of the fishing fleet. Let the experience of the men who know be your guide—specify Hyde.

HYDE
PROPELLERS

EFFICIENT . . . RELIABLE
ALWAYS GET HOME SAFELY

HYDE WINDLASS COMPANY, Bath, Maine



"It's a tough worm" says this bird.

"It twists and it bends while I pull and I shake
And give it the works—but still it won't break."

ECLIPSE AVIATION
SEAMLESS FLEXIBLE METAL HOSE
Manufactured and Sold by
BENDIX AVIATION CORPORATION
Philadelphia Division Dept. 13 Philadelphia, Pa.
Write for Bulletin

The end of your PAINT WORRIES

Set a course straight to the nearest Pettit dealer for paints that can "take it". You'll find fourscore years of specialized marine paint experience in every Pettit can.

PETTIT PAINT CO., INC.
BELLEVILLE, N. J.

PAINT PETTIT
AND SEE WHAT SERVICE MEANS

Have You Examined Your Life Preservers Lately?

Here is an unretouched photo of one less than a year old, that has rotted without ever being in the water. No longer will it pass government inspection—no longer is it safe in an emergency. Mildew rots canvas, but Cuprinol prevents mildew. Approved for life preserver covers by U. S. Bureau of Marine Inspection. If your supplier does not have Cuprinol available it is because the Federal Government has now placed Cuprinol on its high priority list for wartime service.

To Prevent Mildew

Write for booklet **CUPRINOL** **For Fabrics**

CUPRINOL, Inc., 20 Norfolk St., Cambridge, Mass.

Manufacturers of
Compasses • Binnacles
Sounding Machines
Peloruses
•
Agents for
Thermotank
Punkah Louvres
the best distributing unit
for forced ventilation

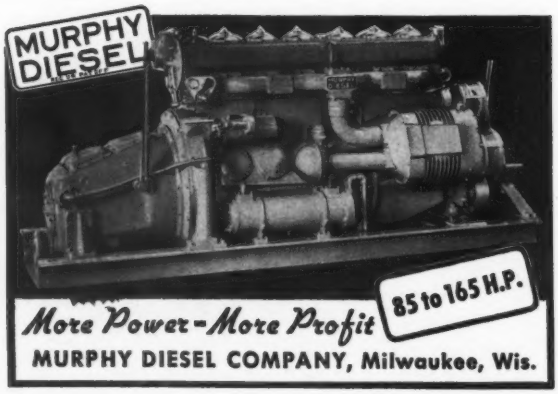
Specializing in compass installation and adjustment under degaussed conditions.

KELVIN & WILFRID O. WHITE CO.
90 STATE ST., BOSTON 38 WATER ST., NEW YORK

The Linen Thread Co., Inc.

Gold Medal Cotton Nets and Twines
A. N. & T. Coy Linen Nets
Manila Trawls, Burnham Lines

Sales Offices:
105 Maplewood Ave. Gloucester, Mass.
New York Baltimore Chicago San Francisco



More Power-More Profit 85 to 165 H.P.
MURPHY DIESEL COMPANY, Milwaukee, Wis.

A HATHAWAY WINCH
Gives You These Features:

All gears enclosed, running in oil.
Streamlined, welded construction.
End vertical drive.
Double friction.

HATHAWAY MACHINERY CO.
Fairhaven, Mass.
Makers of Original Flax Packed Stern Bearings

New Brunswick Fisheries, Firm

By C. A. Dixon

ALTHOUGH the latter part of June failed to produce as many sardine herring in Southern New Brunswick waters as did the first two weeks of the month, the total landings throughout Charlotte County, the main source of production, and to a lesser degree those in Saint John County, amounted to a considerable quantity, of much value to the fishermen. With fish of prime size and quality fetching around $20.00 a hogshead, and mixed fish $15.00, it does not take a great many to provide excellent returns, and those who manage to catch only a few hogsheads earn a lot of money in the aggregate, when the month's accounts are balanced. Catches in weirs ranged from five hogsheads to as high as seventy or more in a few instances, and more than one thousand hogsheads were received by the sardine canneries in Eastport and Lubec alone some single days the first of the month of June. This quantity was supplemented by daily receipts at the Canadian factories. Several smaller factories are engaged in canning larger sized herring in round cans, thus providing additional markets for fish which do not command as ready a sale in normal times as do the smaller sardines.

This year, however, there does not seem to be any sign of the supply of fish of all kinds exceeding the demand, and doubtless fishermen will enjoy, the year round, unlimited markets for every species of fish that are caught in local waters. Already 1942 has got off to a good start in making Southern New Brunswick fishermen prosperous to a degree which holds promise of becoming even more satisfactory as the season advances. It is expected that July will bring increased production, and from then on fishing will be comparatively steady and profitable.

Ground Fishing Profitable

A decided change in the fortunes of line fishermen in the Southern New Brunswick region has taken place this year, and 1942 may provide the best income from ground fishing that has been experienced in many years. Even inshore handliners, those older men who fish close to the rocks as it were, have been making daily incomes far in excess of any ever realized by them. It is not unusual for a fellow to take a dory, row offshore a little way from home and catch fish enough in a few "slacks" to net from $5.00 to $10.00, and men whose hair has turned grey prematurely owing to several years of hard labor in trying to make a living now find no trouble in earning from $2.00 to $4.00 in a few hours, handlining or by setting a few lines of trawl in places frequented by fish which could hardly be disposed of a few years ago for even a pittance.

Mammoth Weir

Conversation among fishermen in Southern New Brunswick and Eastern Maine has been much taken up with discussion of the building of a "big" weir at Grand Manan. The structure, the largest known, is being built in deep water on one of the roughest shores on the island at a place called Drakes Dock. This weir is no less than eight hundred feet in circumference and is located offshore from low water more than eight hundred feet. It required hardwood stakes fifty feet long, "young logs" as one fellow put it, and many of them, driven into the sand from seven to eleven feet, to provide the wherewithal to fasten the ribbands and all twine body to the weir. When the big weir is finished it will cost its owner, the Drakes Dock Company, more than $4,000.00. Both top and bottom will be of twine netting, a major item of expense, which, however, could be wiped out in a single day with a fairly good catch of fish.

Lobsters Plentiful

The lobster fishing season in Charlotte County proved profitable in every district this Spring, and catches were increased considerably over past seasons' landings. Reports from the Eastern part of the province of New Brunswick and the Northeastern section indicate that many shell-fish were caught there, also. In some of the island districts of Charlotte County where lobster fishing fell off to practically nothing for some years, there was a marked pick-up in the catch.

Hubert K. Shaw demonstrating the Morner lifesaving suit at Boston Fish Pier.

Lifesaving Suit Demonstrated

ON July 2nd, a demonstration of the Morner Lifesaving Suit was presented at the outer end of the Boston Fish Pier, by Hubert K. Shaw, the New England Sales Agent. Mr. Shaw, who is not a swimmer, by the way, personally put on the suit, which has an attached rubber hood for optional use, and leaped into the scale-and-scum-covered water, where he paddled around in complete comfort. He demonstrated how the flat-surfaced gloves, which are an integral part of the one-piece rubberized suit, serve as paddles, allowing the wearer to propel himself easily in any direction desired. The boots are weighted so that when the body is not in motion, it automatically maintains an upright position in the water. Having a large built-in kapok vest, the suit is unsinkable, and keeps the body warm even in sub-freezing temperatures.

Over 15,000 of these Government-approved suits are in use by nearly a score of steamship companies. They may be purchased by individual seamen or by companies. Complete information is obtainable by writing Hubert K. Shaw, 1137 Statler Bldg., Boston, Mass.

New Marine Glue Catalog

L. W. FERDINAND & CO., INC., 599 Albany St., Boston, Mass., have issued a new catalog which describes the uses for their marine glues and waterproof cements.

A separate page is devoted to each of the Ferdico-Jeffery products. Special mention is made of how they are being used in the Victory Program, in addition to supplying the requirement of regular trade.

Information includes a description of the work done by each product, Government specifications which it meets, brief application directions, amount of coverage per unit of material and approximate prices.

Booth Fisheries Report

BOOTH Fisheries Corporation has just reported a net income of $428,970 after providing $434,343 for income and excess profits taxes for its fiscal year ended April 25, 1942. This compares with $252,564, after income taxes of $83,790 for the previous fiscal year.

According to R. P. Fletcher, Jr., President, the present rate of earnings is not expected to continue because of war-time dislocations. Price ceilings on frozen, canned and cured fish, as well as quick frozen fruits and vegetables, and the restrictions on the use of trucks, are certain to limit profit margins and curtail sales volume for the near future.

The company has expended $250,000 on modern improvements and equipment during the past year. Four recently-built trawlers have been turned over to the U. S. Navy during the last 18 months, and the entire output of the company's sardine department at Lubec, Maine, is going abroad under lend-lease, while the armed forces are receiving a fair portion of the company's fish output, and the government is utilizing a large part of Booth's refrigerated warehouse space.

COLLEY-MAIER, INC.

NAVAL ARCHITECTS
and
MARINE ENGINEERS

"MAIERFORM"

92 State Street
BOSTON, MASS.
Lafayette 5335

25 West 43rd Street
NEW YORK CITY
Bryant 9-8675

"MARITIME" MANILA "TOPSALL" SISAL

"TOPSALL" TREATED SISAL
Tops 'Em All!

BECAUSE
1. It is made of best available selected and blended fibres.
2. It is lubricated by the famous, exclusive New Bedford method.
3. It is strong, smooth, flexible, kink-resisting.
4. It is the product of over a century of know-how in rope making.

NEW BEDFORD CORDAGE COMPANY
233 Broadway, New York, N.Y. Mills: New Bedford, Mass. 31 St. James Ave. Boston, Mass.

"NEW BEDFORD" MANILA

©2594

CARTER'S
VICTOR BRAND
OILED SUITS
For Fishermen

VICTOR TRADE J.F.C. CO. MARK BRAND

They give long, dependable service
J. F. CARTER CO.
Beverly, Mass.

Set Your Course
With **EDSON**
DEPENDABLE STEERERS

Complete Steering Equipment Including
Wheels - Quadrants - Chains - Sheaves - Shock Absorbers
EDSON NON-CHOKABLE BILGE PUMPS
Hand Operated in Four Sizes

The EDSON Corporation
49 D Street South Boston, Mass.

DEWITT

American-made

FISH HOOKS

Better

BECAUSE TEMPERING CONTROL IS EXACT

THERE'S no guess work in the hardening or tempering of DeWitt fish hooks. Each hook in each heat reaches exactly the critical temperature and is quenched at exactly the same degree. Open furnace oxidation is avoided.

Another reason why DeWitt American-made hooks are unsurpassed in quality by any earlier fish hooks.

Write for prices on your hook needs.

Bill DeWitt Baits
DIVISION OF SHOE FORM CO., INC.
AUBURN, N.Y., U. S. A.

BUDA ENGINES

Marine Models In Several Sizes
in Stock for Immediate Delivery
DELORIE COMPANY
72 Dillingham St. Bangor, Maine

When You Ship . .
FISH, LOBSTERS, SCALLOPS
to the Boston Market
FOR BEST RESULTS SHIP TO
R. S. HAMILTON CO.
On the Boston Market Over 30 Years
17 Adm. Bldg. — Fish Pier — Boston, Mass.

QUALITY SHELLFISH
All Kinds - Fresh and Frozen
WM. M. McCLAIN
Wholesale Distributor
PHILADELPHIA PA.
231 S. Front St. 230 S. Water St.

Where to Ship in New York

Beyer Fish Co., Fulton Fish Market
International Fish Co., 111 South St.
Lester & Toner, Inc., Fulton Fish Market
South Fish Co., 31 Fulton Fish Market
Frank W. Wilkisson, Inc., 16 Fulton Market

INVEST IN WAR BONDS

AFTER EVERY TRIP

FOR VICTORY

BUSINESS OPPORTUNITY

I wish to contact a reputable firm engaged in the fish business (wholesale, shipping or packing fish or fishery products) and seeking capital to enlarge business, or a thoroughly experienced individual planning to start a new business. Am prepared to invest money and be active partner. Will consider any good district on New England or Atlantic coast. For further details address Box 31 c/o Atlantic Fisherman, Goffstown, N. H.

Index to Advertisers

Atlas Imperial Diesel Engine Co...	4
Bendix Aviation Corp.....	23
Bethlehem Steel Co. (Wire Rope)...	22
The Buda Company.....	19
J. F. Carter Co.....	25
Caterpillar Tractor Co.....	16
Colley-Maier, Inc.	25
Columbian Bronze Corp.....	20
Columbian Rope Co.....	1
Cooper-Bessemer Corp.	28
Cummins Engine Co.....	21
Cuprinol, Inc.	23
Bill DeWitt Baits.....	26
R. J. Ederer Co.....	18
The Edson Corp.....	25
L. W. Ferdinand & Co.....	20
Hathaway Machinery Co.....	24
Hyde Windlass Co.....	23
Kelvin-White Co.	24
Kinney Manufacturing Co.....	22
Linen Thread Co., Inc.....	24
Mack Manufacturing Corp.....	3
Murphy Diesel Company.....	24
The National Supply Co.....	2
New Bedford Cordage Co.....	25
Northill Company	18
Pettit Paint Co., Inc.....	23
Stamford Foundry Co.....	19
Superior Diesels	2
Wolverine Motor Works, Inc.....	17

MARINE BARGAINS

If you are in the market for Marine Engines, gas or Diesel, Lighters, Tugs, Fish, Work or Party Boats, etc., write us as to your requirements. If we haven't what you want on our lists, we can find it for you. Our service is free—write us. Knox Marine Exchange, Camden, Maine.

Batteries

Edison Cells, 100 Type A 6 Date W good condition, 100 Type A 6 Date X good condition. Other types in fair condition. Switzer Marine Electric, 19 SW 6th St., Miami, Florida.

Sails

For sale, 2 suits of sails from a 90′ schr. yacht. F. F. Upson, Sailmaker, New Haven, Conn.

Engine Wanted

Would like to buy good second hand, heavy duty Diesel engine, 150 hp., to 200 hp. Would prefer Atlas, Cooper-Bessemer or Wolverine make. Write Box G, c/o Atlantic Fisherman, Goffstown, New Hampshire.

"Diesel Monitor"

A new book, entirely in the form of over 3,000 questions and answers, 530 pages, size 5″ x 7″, profusely illustrated. This book by the well known author, Julius Rosenbloom, offers a complete course on Diesel engineering. Price $5.00 prepaid. Cash with order. ATLANTIC FISHERMAN, Goffstown, N. H.